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9. ABSTRACT

This directory begins with biographic citations of the roster of scientists. These are professionals who have been identified as being chiefly concerned with food crops research and production and whose fields of specialization have a direct concern with increased productivity or improvement of the nutrient content of edible parts of plants in the less developed countries. The food crops concerned are those of major importance worldwide, namely wheat, rice, maize, barley, sorghum, millet, and oats; potatoes, yams, cassava, and sweet potatoes; beans, cowpeas, soybeans, pigeon peas, mungbeans, chickpeas, peanuts or groundnuts, and other lesser known grain legumes. The citation for each scientist includes name, year of birth, languages fluency, academic degrees, specialties, experience, title, and address. The Country-Crop section groups specialists according to country where employed and shows the discipline and crops (or subject) with which each is concerned. The Institutions section lists international and regional research institutions concerned with food crops in developing countries. The Directories of Agricultural Scientists section lists other compilations of specialists who are concerned with agricultural development. The Nonprofit Organizations section lists religious and charitable groups concerned with food crops in the developing countries. The National Associations in the United States section gives rosters that list professional and scientific societies. Some of these societies make available membership lists compiled according to specialty.

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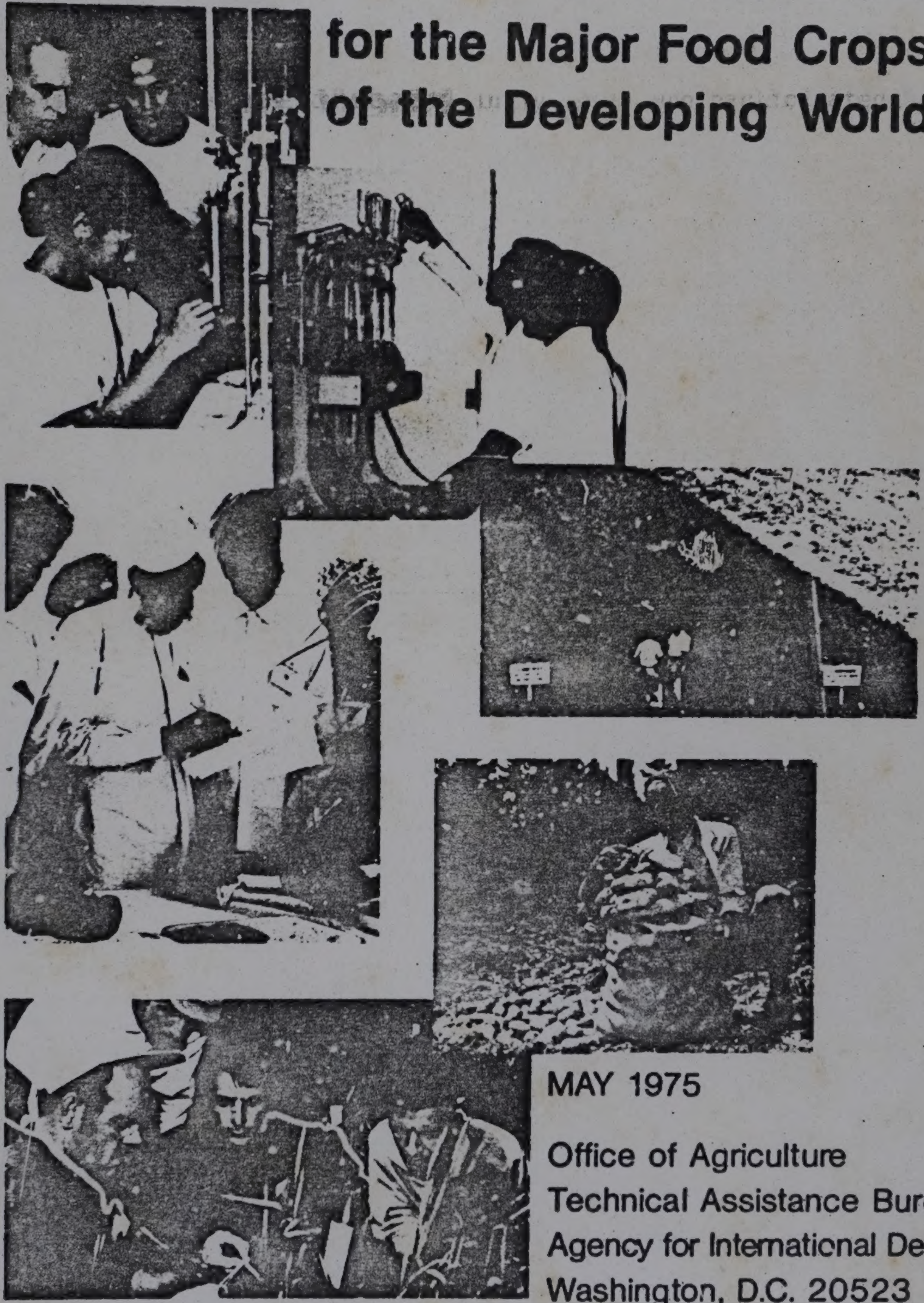
for the Major Food Crops of the Developing World



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Roster of Scientists

for the Major Food Crops of the Developing World

November 1975

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Compiled by
Martin T. Hutchinson
and Elton G. Nelson

Office of Agriculture
Technical Assistance Bureau
Agency for International Development
Washington, D.C. 20523

ACKNOWLEDGMENTS

The Crops Production Division of the Office of Agriculture recognizes the work done by several individuals who participated in the revision of this Roster. Special recognition goes to Dr. Samuel C. Litzenberger under whose direction the work was undertaken and who was primarily responsible for its organization before his retirement. Also recognized are Robert A. Wesselmann, James A. White, Clifford T. Harmon, and Charles Simmons who each prepared biographical material for short periods between other assignments as the data came in from scientists.

Highly appreciated is the contribution of the secretarial and typing staff; Mrs. Mary Harmon typed most of the final copy of the manuscript as she was able to find time from her regular duties, and Mrs. Shirley Dave did extensive typing in the early states of the revision.

FOREWORD

Recognizing the need for information on food crop scientists in the developing countries, the Agency for International Development (AID) published the first edition of this Roster in 1973. It serves as a companion piece to the specialized lists of scientists in developed nations available from the Food and Agriculture Organization of the United Nations, the British Commonwealth, and other public and private sources.

The reception given to the original edition confirmed its usefulness worldwide and, in due course, AID decided to issue a revision. The second edition updates the original and expands upon it with the inclusion of more than twice as many scientists. AID expects this revision to prove extremely valuable, especially to institutions concerned with increasing world food production and improving food quality.

This revision suffered a setback in July 1974 with the unexpected demise of Dr. Martin Hutchinson who had undertaken the task. It was his single-handed effort which produced the first edition, and which developed the groundwork for revision. This amplified edition should be considered a tribute to Dr. Hutchinson's own real dedication and concern for feeding the hungry of the world.

Leon F. Hesser
Director
Office of Agriculture
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Washington, D. C. 20523

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HOW SELECTION OF ENTRIES WAS MADE

The scientists listed in the Roster are professionals who have been identified as being chiefly concerned with food crops research and production and whose fields of specialization have a direct concern with increased productivity or improvement of the nutrient content of edible parts of plants. The food crops concerned in this Roster are those of major importance worldwide, namely: wheat, rice, maize, barley, sorghum, millet, and oats; potatoes, yams, cassava, and sweet potatoes; beans, cowpeas, soybeans, pigeon peas, mungbeans, chickpeas, peanuts or groundnuts and other lesser known grain legumes.

The "developing world" qualification indicates that the listed persons, regardless of their nationality, are devoting much of their talents to improving food crop production in the less technologically advanced areas of the world. Private consultant firms and equipment dealers are not included, nor are individuals belonging to voluntary organizations. It is AID's intention to ultimately see prepared a supplementary volume listing crops specialists of the voluntary groups such as the Peace Corps, International Voluntary Services, missionary organizations, *et cetera*. The unavailability of information from some countries has further limited the breadth of the listings.

At the outset, it was accepted that there are many thousands of crop scientists working in the less developed countries, and that an attempt to include them all would take far more time and resources than were available for the task. We therefore contacted several recognized agricultural leaders and technical specialists for their recommendations as to who should be included on a selected list -- the basis for selection being the degree to which a given person was considered outstanding, or with potential to become outstanding -- with due regard for including as many disciplines and as many countries as possible.

Some difficulty was encountered in determining whether to exclude persons whose specialties included work in soils, horticulture and agricultural engineering. The decision was made to include them only if their work appeared to be predominantly concerned with the food crops indicated above.

While primarily intended as a roster of scientists indigenous to the less developed countries, also represented are some crops scientists from the developed countries, who have spent, and continue to spend -- directly or indirectly, a considerable part of their professional careers working in or for the less developed world. To complete the worldwide coverage of crop scientists that have contributed or are available to contribute to the food crop science component in the less developed nations, we have included a bibliography of other directories to agricultural scientists and institutions. The scientists included from the industrial countries were not selected on a systematic basis; therefore, information on many highly qualified scientists is available only through the directories shown in appendices.

The rapid growth of this field, address changes, new endeavors, and communications shortcomings inevitably start the obsolescence process before a publication of this type goes to press. Errors and ommissions have been unintentional. In any case, it is hoped that this listing will be helpful in promoting increased food production throughout the world.

HOW TO USE THE ROSTER

The first major section of the Roster is Biographic Citations; the second major section, Country-Crop, relists the names of these with biographic citations by country. The crops or subject with which the specialist is concerned is also shown.

The appendices A through E give (and describe) selected listings of organizations, but only Appendix A lists specialists. The references included can be used to supplement this Roster.

Biographic Citations

The biographic citations section is the main body of the Roster. It lists specialists alphabetically and gives information in the following sequences:

Surname, followed by given name(s) and/or initial(s).

Year of birth (in parentheses) and citzenship, Cit:.

Language fluency, Lang: The native language is given first, followed by other languages in which the specialist has indicated fluency.

Academic degrees, Acad Degrees: Degree, name of institution, and year obtained are given.

Specialties, Spec: University discipline(s); crop(s); other or special interests are given in that order.

Experience, Exper: Professional work experience is described briefly and certain other items such as international conferences and awards are mentioned. They have been edited to keep them to a manageable length.

Title, Title: Title is given complete and usually in English, so that most readers will be able to recognize the position held by the scientist.

Address, Address: Address is given in the language in which it is received. Minor abbreviations may be made. Names of countries are Anglicized.

Abbreviations and Acronyms used in the Biographic Citations are tabulated in the next section beginning on page 5.

Country-Crop

The country-crop section groups specialists according to country where employed and shows the discipline and crops (or subject) with which each is concerned.

Institutions (Appendix A)

The institutions section lists international and regional research institutions that are concerned with food crops in developing countries. The name and address of the institution, chief administrators, food crop specialists and the specialist's title of field work (if given by institution) are indicated.

Directories of Agricultural Scientists (Appendix B)

The directories of agricultural scientists section lists other compilations of specialists who are concerned with agricultural development. These supplement the information in the Roster.

Directories of Agricultural Research Stations (Appendix C)

The directories of agricultural research stations section lists experiment stations, institutes and other organizations that are known to support food crops research. Some are worldwide and some are more limited in scope.

Nonprofit Organization (Appendix D)

The nonprofit organization section lists religious and charitable groups who are concerned with food crops in the developing nations of the world.

National Associations in the U.S. (Appendix E)

The section on national associations in the U.S. gives rosters that list professional and scientific societies. Some such societies make available membership lists compiled according to specialty.

ABBREVIATIONS AND ACRONYMS

AAAS	American Association for the Advancement of Science. New York, USA
Acad	Academic
ACAR	Associacao de Credito e Assistencia Rural (Association of Rural Credit and Assistance), Brazil
Admin	Administration
AIBS	American Association of Biological Sciences, USA
AICRIP	All India Coordinated Rice Improvement Project, India
AID	Agency for International Development, USA
Agric	Agriculture (or Agricultural)
Agron	Agronomy (Agronomic)
Ag Eng	Agricultural Engineer
ALAD	Arid Lands Agricultural Development Program, Ford Foundation, Lebanon
ALAF	Associacion Latinoamericana de Fitotecnia, Venezuela
Aptdo	Apartado (Postal Box)
Assoc	Associate
Asst	Assistant
AVRDC	Asian Vegetable Research and Development Center, Taiwan
BA	Bachelor of Arts
BD	Bachelor of Divinity
BP	Boite Postale (postal box)
BSA	Bachelor of Science in Agriculture
BSc or BS	Bachelor of Science

CATIE	Centro Agronomic Tropical de Investigacion y Ensenanza Turrialba, Costa Rica
Cert	Certificate
CIAT	Centro Internacional de Agricultura Tropical (International Center for Tropical Agriculture), Cali, Colombia
Cit	Citizenship
CIMMYT	Centro Internacional de Mejoramiento de Maiz y Trigo (International Center for Corn and Wheat Improvement), Mexico
Corp	Corporation
CIP	Centro Internacional de Papa (International Potato Center), Lima, Peru
CRIA	Central Research Institute for Agriculture, Indonesia
CRRI	Central Rice Research Institute, India
CSIRO	Commonwealth Scientific and Industrial Research Organization, British Commonwealth
Dept	Department
Dep	Deputy
DGIA	Direccion General de Investigaciones Agraria
Dip	Diploma
Dir	Director
Div	Division
Dr	Doctor
Dr Agric Dr Agr or Dr. Agri	Doctor of Agriculture
DTA	Diploma of Tropical Agriculture, Trinidad
EAAFRO	East African Agriculture and Forestry Research Organization, Nairobi, Kenya
Educ	Education
EMBRAPA	Empresa Brasileria de Pesquisa Agropecuaria, Brazil

Eng Agron	Engenheiro Agronomo
Esq	Esqela (school)
Exper	Experience
Expt	Experiment
FAO	Food and Agriculture Organization, Rome, Italy
Hon	Honorary
Hons	Honors
HSIU	Haile Selassie Imperial University, Ethiopia
IAEA	International Atomic Energy Agency, Vienna, Austria
IARI	Indian Agricultural Research Institute, New Delhi, India
IBRD	International Bank for Reconstruction and Development
ICA	Instituto Colombiano Agropecuario, Ministry of Agriculture, Colombia
I/C	In charge
ICAITI	Instituto Centroamericano de Investigaciones de Technologia Industrial (Central American Food Technology Institute), Guatemala
ICRISAT	International Crops Research Institute for the Semiarid Tropics, Hyderabad, India
ICTA	Instituto de Ciencia Technologicia y Agricola, Guatemala
IICA	Instituto Interamericano de Ciencias Agricolas, San Jose, Costa Rica
IITA	International Institute of Tropical Agriculture, Ibadan, Nigeria
INCAP	Instituto de Nutricion de Centro America y Panama Guatemala City, Guatemala
INIA	Instituto Nacional de Investigaciones Agricolas, Mexico
INIAP	Instituto Nacional de Investigaciones Agropecuarias, Ecuador

Ing Agri	Ingeniero Agricola
Ing Agro.	Ingeniero Agronomo, Ingenieur Agronome
Ing Doc	Ingenieur Docteur
INRA	Institut National de la Recherche Agronomique, France
Inst	Institute
INTSOY	International Soybean Program, USA Headquarters
IPEANE	Instituto de Pesquisa e Experimentaca Agropecuaria do Nordesta, Brazil
Ir	Ingenieur (Translates as engineer, but is roughly equivalent to MSc in USA)
IRAT	Institut de Recherches Agronomiques Tropicales, Paris, France
IRHO	Institut de Recherche pour Les Huiles et Oleagineaux (Research Institute for Oils and Oil Seeds), Paris France
IRRI	The International Rice Research Institute, Laguna, Philippines
Jr	Junior
Lang	Language(s)
MA	Master of Arts
MC	Maestro en Ciencias
MD	Medical Doctor
MSc or MS	Master of Science
Nac	Nacional
Nat	Natural
Natl	National
NIH	National Institutes of Health, Bethesda, Maryland, USA
ODA	Overseas Development Agency, London, England

ORSTOM	Office de la Recherche Scientifique et Technique Outre-Mer, Paris, France
PA	Perito Agrario, Perito Agricola
PhD	Doctor of Philosophy
PMB	Private Mail Bag
P.O.	Post Office
Prod	Production
Prof	Professor
Res	Research
ScD	Doctor of Science
SEATO	Southeast Asia Treaty Organization
Spec	Specialties
SPI	Stored Products Institute
Sr	Senior
Sta	Station
Supt	Superintendent
TA/AGR	Office of Agriculture, Bureau for Technical Assistance, AID
Tng	Training
Trop	Tropical
UNDP	United Nations Development Project
UNESCO	United Nations Education, Scientific and Cultural Organization
Univ	University
UPLB	University of the Philippines, Los Banos
USAID	United States Agency for International Development
USDA	United States Department of Agriculture

UWI	University of the West Indies
Veg	Vegetable
WHO	World Health Organization
WPAU	West Pakistan Agricultural University, Lyallpur, Pakistan
Yrs	years

FOOD CROP NAMES

The common names are those most widely used in the less developed countries. The scientific names are taken from *Index to Alternative Crops*, Plant Taxonomy Laboratory, Beltsville Agricultural Research Center West, U. S. Department of Agriculture, Beltsville, Maryland, 20705 (Nov 1974).

Cereals (grains)	barley	*Hordeum vulgare*
	maize (corn)	*Zea mays*
	millet	*Pennisetum* spp.
	oat	*Avena sativa*
	rice	*Oryza sativa*
	rye	*Secale cereale*
	sorghum (guinea corn)	*Sorghum bicolor* (*vulgare*)
	teff	*Eragrostis tef*
	wheat	*Triticum aestivum*
Grain legumes (pulses, edible legumes, food legumes)	Bambara groundnut	*Voandzeia subterranea*
	bean	*Phaseolus vulgaris*
	broadbean	*Vicia faba*
	chickpea	*Cicer arietinum*
	cluster bean (guar)	*Cyamopsis tetragonoloba*
	groundnut (peanut)	*Arachis hypogaea*
	grass pea	*Lathyrus sativus*
	rough pea	*Lathyrus hirsutus*
	lentil	*Lens culinaris*
	lima bean	*Phaseolus lunatus*
	moth bean	*Vigna aconitifolia*
	mungbean (green gram)	*Vigna radiata*
	pea	*Pisum sativum*
	pigeon pea	*Cajanus cajan*
	soybean	*Glycine max*
	urdbean (black gram)	*Vigna mungo*
Root and Tuber crops	arrowroot	*Maranta arundinacea*
	cassava (manioc, yuca)	*Manihot esculenta*
	potato	*Solanum tuberosum*
	sweet potato	*Ipomoea batatas*
	taro (cocoyam)	*Colocasia esculenta*
	yam	*Dioscorea* spp.
	yautia	*Xanthosoma* spp.

ABEYGUNAWARDENA, D. V. W. (1926). Cit: Sri Lanka. Lang: Sinhalese, English. Acad Degrees: BSc Ceylon (1950); PhD London (1955). Spec: Plant pathology; rice, potatoes, vegetables; direction and coordination of research, seed potato production. Exper: Research Asst, tea research (1950-51); Research Coordinator (1956-62); Plant Pathologist (1962-68); Asst Director of Agric Research (1969-present); attended several international conferences, seminars, symposia; author of book "Diseases of Cultivated Plants in Ceylon"; many scientific publications. Title: Asst Director Agric Research. Address: Central Agric Research Institute, Dept of Agric, Gannoruwa, Peradeniya, SRI LANKA.

ABRAMS, Raul (1919). Cit: U.S.A. Lang: Spanish, English. Acad Degrees: BSA Puerto Rico (1950); MSc Iowa (1956); PhD Iowa (1963). Spec: Plant breeding, genetics; pigeon peas, soybeans, tomatoes; breeding for high yield, disease resistance, quality. Exper: Research Asst (1950-56); Asst Agronomist (1956-63); Assoc Plant Breeder (1963-67); Plant Breeder (1967); Plant Breeder and Chairman, Agronomy Dept, Univ of Puerto Rico (1970-present); conferences in USA, Central and South America and Africa. Title: Chairman, Agronomy Dept. Address: College Station, Mayaguez Campus, Mayaguez, PUERTO RICO 00708, USA.

ACOSTA-CARREON, Aristeo (1925). Cit: Mexico. Lang: Spanish, English, French, German. Acad Degrees: Agr Eng Mexico (1948); MSc Nebraska (1954); PhD Missouri (1961). Spec: Genetics, cytogenetics, plant breeding; wheat, triticale; applied plant breeding, teaching and research. Exper: Total of 26 years experience in international wheat breeding programs; Rockefeller Foundation Program in Mexico (1949-57); Head, Wheat Program, Morocco, CIMMYT/AID (1969-73); Professor of Cytogenetics, Cytology and Genetics; collaborator on several international conferences and workshops. Title: Technical Director, Soft Red Winter Wheat. Address: R.R. #2, Brookston, Indiana 47923, USA.

ADAMS, Maurice W. (1918). Cit: U.S.A. Lang: English, Spanish. Acad Degrees: BSc Purdue (1941); PhD Wisconsin (1949). Spec: Agronomy, genetics, breeding; dry beans, soybeans, other grain legumes; genetics and interrelationships of components related to yield, ideotypes and population improvement. Exper: Agronomist and Professor Alfalfa Genetics and Breeding, South Dakota State College (1947-58); Professor of Bean Breeding, Genetics and Plant Breeding, Michigan State Univ (1959-74); Consultant to Latin American countries; Participant in Bean Research, C.I.A.T. Title: Professor of Crop Sciences; Project Leader in Bean Breeding and Genetics. Address: Dept of Crop and Soil Sciences, Michigan State Univ, East Lansing, Michigan 48824, U.S.A.

ADAY, Bliss A. (1943). Cit: Philippines. Lang: Filipino, English. Acad Degrees: BSa Philippines (1963); MSc Philippines (1967); PhD Philippines (1973). Spec: Plant breeding, genetics, agronomy; maize; maize breeding for resistance to insects and downy mildew, protein quality. Exper: Research Asst and Instructor (1963-67); Instructor (1967-73); Asst Professor in Plant Breeding (1973-present); Head of Corn and Sorghum Section (1974-present); Visiting Scientist at CIMMYT (1973); Philippine Seed Board (1974-present). Title: Asst Professor. Address: Dept of Agronomy, Univ of the Philippines at Los Banos, College, Laguna, E-109, PHILIPPINES.

ADDISON, Emmanuel A. (1937). Lang: Akan, English. Acad Degrees: BSc Cornell (1962); MSc Kansas (1964). Spec: Plant pathology, plant quarantine; various crops. Exper: Inter-African Phytosanitary Commission Conference in Kenya (1966) and Nigeria (1969); Seed Pathology Workshop, Ghana (1970); IITA Symposium (1971). Title: Officer-in-Charge, Plant Pathology Section. Address: Crops Research Institute, P.O. Box 3785, Kumasi, GHANA.

ADIKPETO, Bernard C. (1939). Cit: Dahomey. Lang: Fon, Mina, French. Acad Degrees: Ing Agron Agric Tng School at Ina (1966); Ing du Genie Rural Ina (1967). Spec: Rural planning; rice, cotton; protection of harvest. Exper: Agric-Econ planner (3 yrs). Title: Director General. Address: Societe Nationale Agricole pour le Coton (SONACO), B.P. 1292, Cotonou, DAHOMEY.

ADUAYI, Emmanuel Adote (1939). Cit: Nigeria. Lang: Kwale (Ibo, Ewe (Togo), English, French. Acad Degrees: BSc Arizona State (1965); MSc American Univ, Beirut (1968); PhD Nairobi (1973). Spec: Soil chemistry, soil fertility, crop production and physiology; coffee, wheat, barley, maize, citrus, yams, okra; methods for chemical analysis of plants and soils, macro- and micro-nutrition of plants. Exper: Research on coffee nutrition; soil fertility and plant nutrition lecturing; Head, Chemistry Section, Coffee Research Station, Kenya; one yr diploma course on plant nutrition and soil chemistry at Univ College, North Wales (1969). Title: Lecturer (Soil Chemistry and Fertility). Address: Soil Science Dept, Univ of Ife, Ile-Ife, NIGERIA.

ADVINCULA, Benny A. (1942). Cit: Philippines. Lang: Filipino, English. Acad Degrees: BSc Philippines (1965); MSc Philippines (1974). Spec: Plant pathology, agronomy, plant

breeding; maize, rice, sorghum, groundnuts, soybeans; seed-borne diseases/pathogens, seed treatment. Exper: Research Instructor, rice and corn (1966-67); Agronomist, corn (1967-present); Project Leader, "Seed-borne Diseases of Major Crops in the Philippines" (1973-present); in charge Seed Pathology Section (1972-present); training in seed pathology at Copenhagen, Denmark (1970-71). Title: Agronomist. Address: Dept of Plant Pathology, Univ of Philippines, Los Banos, College, Laguna, PHILIPPINES.

AGBLE, Francis (1940). Cit: Ghana. Lang: Ewe, English, Akan. Acad Degrees: BSc Ghana (1967); MSc Ghana (1969). Spec: Genetics, plant breeding; tomatoes, cowpeas; yield increase and quality. Exper: Research Officerin charge of tomato breeding (1970-present); international course at Wageningen (1973); conferences in Africa and Europe. Title: Research Officer. Address: Crops Research Institute, P.O. Box 3785, Kumasi, GHANA.

AGBLE, William Kwesi (1927). Cit: Ghana. Lang: Ewe, Ga, English. Acad Degrees: BSc Lakeland College, Wisconsin (1950); MSc Minnesota (1953); PhD Minnesota (1955). Spec: Plant breeding, agronomy; maize, rice; tropical maize breeding, tropical agriculture and agronomy, genetic resources in tropical African crop plants. Exper: Chairman, Management Committee for Ghana Journal of Agric Science; Member of F.A.O. Panel of Experts in Plant Exploration and Introduction (1965); Past President, Ghana Agric Association; attended scientific conferences in Asia, Europe and the Americas; published a number of papers. Title: Director, Crops Research Institute. Address: Crops Research Institute, (Council for Scientific & Industrial Research), P.O. Box 3785, Kumasi, GHANA.

AGBO, Fabian M. O. (1938). Cit: Nigeria. Lang: Ibo, Hausa, English. Acad Degrees: BSc (Hons) Univ of Nigeria (1966). Spec: Botany, genetics, plant breeding; cassava, soybeans; starch, protein, disease and pest problems, resistance. Exper: Laboratory Asst, Shell-B.P. Company, Nigeria (1959); Lecturer, general biology (1964); research, cowpea varieties (1965); Lecturer, botany, (1966-67); Research Officer, field crops (1966-72); Collaborator, Grain Legume Improvement Program, IITA (1972-73). Title: Plant Breeder. Address: Federal Agric Research and Training Station, Umudike, Umuahia-Ibeku, NIGERIA.

AHMAD, Ihsar (1942). Cit: Pakistan. Lang: Pushto, Urdu, English, Spanish. Acad Degrees: BSc Peshawar (1964); Diploma, Chapingo, Mexico (1969); MSc Peshawar (1970). Spec: Potato and vegetable science; potatoes, tomatoes, peas; introduction, selection, and breeding. Exper: Fertilizer use, cultural practices for increased yields, certified potato seed production. Title: Asst Botanist (potato). Address: Vegetable Section, Agric Research Institute, Tarnab, Peshawar, NWFP, PAKISTAN.

AHMAD, Munshi (1928). Cit: Bangladesh. Lang: Bangla, English, Urdu. Acad Degrees: BAg Dacca Univ (1949); MAg Dacca (1956); PhD Texas A&M (1968). Spec: Genetics, plant breeding; rice, wheat, oilseed crops; breeding. Exper: Research Asst (1949-56); Sugarcane Agronomist (1957-58); Agronomy Teacher (1956-60); Asst Economic Botanist, Cereals Research (1961-67); Rice Breeder (1968-present); training at IRRI in rice breeding (1967). Title: Principal Scientific Officer (Breeding). Address: Bangladesh Rice Research Institute, Joydebpur, Dacca, BANGLADESH.

AHMAD, Sajjad (1937). Cit: Pakistan. Lang: Punjabi, Urdu, English. Acad Degrees: BSc Punjab (1959); MSc W.P.A.U. (1967). Spec: Entomology; urd beans, lentils, mung beans, mash; studies of insect pests of pulse crops. Exper: Agric Asst, Extension (1959-61); Research Asst, wheat (1961-64); Research Asst, maize (1964-68); Asst Entomologist, sugarcane (1968-72); Asst Entomologist gram and pulses (1972-present). Title: Asst Entomologist, Gram and Pulses. Address: Gram Section, Punjab Agric Research Institute, Lyallpur, PAKISTAN.

AHMAD, Syed Tauseef (1937). Cit: India. Lang: Hindustani, Hindi, English, Persian. Acad Degrees: BSc (1959); MSc (1963) and PhD (1969) Aligarh Muslim Univ. Spec: Botany and plant pathology; wheat, oats, barley, maize, vegetables, and sugarcane; diseases and their control, breeding for disease resistance. Exper: about 11 yrs research on various fungal, bacterial, virus and nematode diseases of wheat, barley, oats, cowpeas, peas and sugarcane. Title: Plant Pathologist. Address: Indian Grassland and Fodder Research Institute, Jhansi, (U.P.), INDIA.

AHMED, Ismail S. (1915). Cit: Egypt. Lang: Arabic, English. Acad Degrees: BSc Cairo (1939); MSc Cairo (1967). Spec: Plant breeding and agronomy; wheat, rice, maize; mutation studies by irradiation, plant density, fertilizer use. Exper: Research Asst, rice (1940-47); Research Officer, Rice Investigation (1947-64); Director, Rice Research Section, Ministry of Agric (1964-72). Title: Director, Cereal Crop Division. Address: Field Crop Research Institute, Agric Research Center, Orman, Giza, EGYPT.

AIAR, Atiqullah (1943). Cit: Afghanistan. Lang: Pushtoo and Dari, English. Acad Degrees: BSc Kabul Univ (1967); MSc Arkansas

(1973). Spec: Agronomy; wheat, maize, rice and legumes; crop improvement. Exper: Worked as a research technician in Darulaman Research Station for 3 yrs and Director of Balkh Research Station for 2 yrs. Title: Director of Cereal Crops Improvement. Address: Dept of Research and Soil Science, Ministry of Agric and Irrigation, Kabul, AFGHANISTAN.

AKINGBOHUNGBE, Amos Eniola (1945). Cit: Nigeria. Lang: Yoruba, English. Acad Degrees: Bsc Ife, Nigeria (1969); MSc Wisconsin (1971); PhD Wisconsin (1972). Spec: Entomology; grain legumes; screening for resistance to insect pests, insect taxonomy, and cytogenetics. Exper: High School Biology Teacher (1969); Lecturer, plant science, (1973-present); study tours, U.S.A., England (1972). Title: Lecturer, Dept of Plant Science. Address: Univ of Ife, Ile-Ife, NIGERIA.

AKPOSOE, Mathias K. (1929). Cit: Ghana. Lang: Ewe, Twi, English. Acad Degrees: BSc Minnesota (1965); MSc Minnesota (1967). Spec: Plant breeding, genetics; maize; yeild, protein quality and quantity, adaptive trials. Exper: Research Officer, natl maize improvement program (1967-present); Consultant, Grains Development Board (1973-present); extensive travel in Mexico, West Africa, East Africa. Title: Research Officer, Maize Improvement. Address: Crops Research Institute, C.S.I.R., P.O. Box 3785, Kumasi, GHANA.

ALAM, M. Zahurul (1925). Cit: Bangladesh. Lang: Bengali, English, Urdu, Hindi. Acad Degrees: BSc Dacca (1946); BAg Dacca (1948); MAg Dacca (1951). Spec: Entomology; rice, sugarcane, fruits, vegetables; insect control and pesticides. Exper: Entomology Asst (1948-52); Asst Entomologist (1953-59); Entomologist (1969-present); Professor of Entomology and Head of Division (1961-present); 7 conferences in S.E. Asia. Title: Chief, Entomology Division, and Professor of Entomology. Address: Bangladesh Agric Research Institute, Dacca-15, BANGLADESH.

ALAM, Shamsul (1936). Cit: Bangladesh. Lang: Bengali, English, Urdu, Hindi. Acad Degrees: BSc Dacca (1956); MSc Dacca (1957); PhD Cornell (1971). Spec: Engomology, zoology, breeding, ecology; rice, fruit crops, vegetables; population studies of insects, integrated control of insect pests. Exper: Research Asst, fruit pests (1958-62); Asst Entomologist (1962-64); In Charge Agric Research Substation (1964-70); Asst Entomologist, Rice Research Institute (1970-72); Engomologist (1972-present). Title: Principal Scientific Officer. Address: Bangladesh Rice Research Institute Joydevpur, Dacca, BANGLADESH.

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ALBUQUERQUE, Milton De (1941). Cit: Brazil. Lang: Portuguese, Spanish, English. Acad Degrees: BSc Para, Brazil (1940); MSc Para (1957). Spec: Phytotechnology, genetics; cassava, sweet potatoes, yams, aroid, arrowroot; starch and protein quality and quantity, breeding. Exper: Research Asst, maize, rice (1942-46); extensive work in East Amazon Valley; Research Head, tropical root and tuber crops (1974-present). Title: Head, Tropical Root and Tuber Crop Scheme, All Amazon Valley. Address: Instituto de Pesquisa Agropecuaria do Norte (EMBRAPA-IPEAN) Belem-Para, BRAZIL, C.P. 48.

ALEMAN-RAMIREZ, Rodolfo Ernesto (1938). Cit: Panama. Lang: Spanish, English. Acad Degrees: BSc Arkansas (1960); MSc Arkansas (1963); PhD Ohio (1969). Spec: Agronomy, soils; cowpeas, pigeon peas, soybeans, beans, tropical fruits, vegetables, tuber crops; agronomic aspects of beans, soil chemistry related to yield in the tropics. Exper 8 yrs college teaching; 10 yrs research; administration of both small and large projects, 6 yrs. Title: Professor. Address: Facultad de Agronomia, Estafeta Universitaria, Universidad de Panama, REPUBLIC DE PANAMA.

ALI, Chuadhary Roshan (1930). Cit: Pakistan. Lang: Punjabi, English, Urdu. Acad Degrees: BSc Punjab (1951); MSc Punjab (1953). Spec: Plant pathology, plant breeding; potatoes, vegetables, fruits. Exper: Research Asst in cotton breeding (1953-57); plant pathology (1956-69); plant pathology on potatoes (1970-present). Title: Asst Plant Pathologist. Address: Potato Research Station, Sialkot, PAKISTAN.

ALIO, Abdullahi N. (1941). Cit: Somalia. Lang: Somali, Arabic, German, English. Acad Degree: MSc Gen Ag Leipzig (1966). Spec: Agronomy, breeding; maize, sorghum, millet, rice, wheat; breeding for high yield drought resistance. Exper: Asst Manager/Agronomist, maize, rice, and sesame production (1967-70); Rice Tobacco Experimental Farm, Jowhar, Somalia (1970-71); Research Officer/Agronomist, maize, sorghum, and millet, Central Agric

Research Station at Afgoi (1972-present). Title: Agric Research Officer/Agronomist. Address: P.O. Box 1203, Mogadishu, SOMALIA.

ALLAN, Alexander Y. (1934). Cit: U.K. Lang: English, French, Swahili, (Latin). Acad Degrees: MA Glasgow (1955); BSc (Agric) Glasgow (1958); Dip Agric Cambridge (1959); Dip Trop Agric Trinidad (1960); PhD Makerere (1972). Spec: Agronomy; maize; development of maize production in the tropics, general agricultural development in Kenya and East Africa. Exper: Farm and settlement planning, district advisory work at Ol Joro Orok (1960-62); maize agronomy research and extension, Kitale, Kenya (1963-71); Leader of Kenya Maize Agronomy Project; in charge of team of 9 scientists (1972-present). Title: Leader, Maize Agronomy Research Project. Address: Maize Research Section, National Agric Research Station, P.O. Box 450, Kitale, KENYA.

ALMEIDA, Francisco Celio Guedes (1940). Cit: Brazil. Lang: Portuguese. Acad Degree: BSc Ceara (1968). Spec: Plant breeding; cassava; introduction and testing of varieties, spacing and fertilizing trials. Exper: Teaching; research on cassava. Title: Asst Professor of Genetics. Address: Departamento de Fitotecnia, Centro de Ciencias Agrarias, Universidade Federal de Ceara, Caixa Postal 354, 60.000 Fortaleza, Ceara, BRAZIL.

AL-MOHAMMED, Naim Thani (1931). Cit: Iraq. Lang: Arabic, English. Acad Degrees: BSc VPI (1962); MSc Cornell (1964); PhD Cornell (1967). Spec: Biometry, plant breeding; wheat and barley; statistical studies on cereals, experimental designs, agric statistics. Exper: Research Asst, cereals (1962-67); Biostatistician, USA (1967-69); Director, Agric Statistics Division, Iraq (1970); Lecturer, Statistics and Experimental Designs, Saudi Arabia (1970-73); Agric Statistician, FAO (OPAS) Bahrain (1973-present). Title: Agric Statistician. Address: Agricultural Directorate, P.O. Box 251, Manama, BAHRAIN.

ALVARADO, Alfonso D. (1936). Cit: Panama. Lang: Spanish, English. Acad Degree: Ing Agr Monterrey (1962). Spec: Plant breeding; maize, sorghum. Exper: Natl Institute of Agric (1963-65); training at CIMMYT (1967-68); Head of Research, Ministry of Agric (1969); Head, Corn and Sorghum Program (1970-present). Title: Research Assoc in Charge, Program of Corn and Sorghum. Address: Estafeta Universitaria, Facultad de Agronomia Universidad de Panama, PANAMA.

ALVARADO, Luis F. (1938). Cit: Colombia. Lang: Spanish, English. Acad Degrees: Agron, Tunja (1965); MSc National Univ of Colombia (1972). Spec: Plant physiology; potatoes, cassava; frost resistance, production. Exper: Research Asst (1967-69); Research Officer, potato production (1973-74). Title: Research Officer, Agronomist. Address: Instituto Colombiano Agropecuario, Apartado Aereo 151123 (Eldorado), Bogota, COLOMBIA.

ALVAREZ, Luis Alberto (1928). Cit: Paraguay. Lang: Spanish, English. Acad Degrees: BSc Puerto Rico (1960); MSc Cornell (1963). Spec: Plant breeding and plant pathology; vegetables, fruits, wheat, soybeans, cotton, tobacco; heredity of disease resistance and variety improvement. Exper: Research work (1960-62); Prof, fruit culture (1963-68); member Natl Wheat Program (1965-75). Title: Director of Agric Research and Extension. Address: Investigacion y Extension Agropecuaria y Forestal, Ministerio de Agricultura y Ganaderia, Asuncion, PARAGUAY.

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AMEEN, Omar A. (1931). Cit: Iraq. Lang: Kordi, Arabic, English. Acad Degrees: BSc Baghdad (1955); MSc Arizona (1958). Spec: Agronomy; wheat and barley; breeding. Exper: breeding and agro-technique research on wheat, barley, rice (1958-65); Head, cereals research (1965-68); Director, cereals and legume research (1968-present). Title: Director, Cereal and Legume Crops Divison. Address: Directorate-General of Field Crops, Abu-Ghraib, Baghdad, IRAQ.

AMIN, Kantilal S. (1934). Cit: India. Lang: Hindi, Gujarati, Marathi, English. Acad Degrees: BSc Gujarat (1954); MSc Bombay (1958); PhD Wisconsin (1965). Spec: Plant pathology, mycology; cowpeas, rice, pigeon peas, chickpeas, mungbeans; resistance to disease. Exper: Wide experience with diseases of pulses and fungal diseases of rice in India (1961-present); diploma and photo experience; interest in lab design and maintenance of lab instruments. Title: Plant Pathologist, All-India Coordinated Rice Improvement Project. Address" AICRIP, Rajendranagar, Hyderabad-500030 (A.P.) INDIA.

AMINI, Halim Jan (1945). Cit: Afghanistan. Lang: Pushtoo and Dari, English. Acad Degrees: BSc Kabul Univ (1967); MSc Kansas State (1971). Spec: Crop improvement; wheat, corn, cotton, sugar beets, and legumes; crop improvement. Exper: Worked as a technician at Darulaman Research Station for five yrs. Title: Director, Industrial, Oil and Legume Crops. Address: Dept of Research and Soil Science, Ministry of Agric and Soils, Kabul, AFGHANISTAN.

ANANG, Husin (1934). Cit: Indonesia. Lang: Indonesian, English, Dutch. Acad Degrees: BSc Massey University, New Zealand (1965); MSc Massey (1967). Spec: Agronomy; rice, potatoes; production factors, fertilizer use. Exper: Volunteer Service, sheep (1967-68); Research Officer, PUSRI Agric Research (1968-69); Advisor, Rice Intensification Program (1969-70); Agronomist, Rice Intensification Program Evaluation, World Bank (1971); Consultant, Indonesian Agric Development (1972-present); attended three conferences in Asia. Title: Consultant, Indonesia Research and Development Company, Address: Jl. Sutan Syahrir 42, Jakarta, INDONESIA.

ANDIAPPA, Subramanian (1920). Cit: India. Lang: Tamil, Hindi, English. Acad Degrees: BSc Coimbatore (1942); MSc Coimbatore (1962). Spec: Cytogenetics, plant breeding; rice, sorghum, millets, pulses; varietal improvement. Exper: Research on millets and pulses (16 yrs); extension work (3 yrs); Rice Specialist (5 yrs); Secretary Research Council (2 yrs); Rice Breeder (2 yrs); Professor and Dept Head (3 yrs); Editor of Madras Agric Journal (1 yr). Title: Professor and Head of Botany Dept. Address: Tamil Nadu Agric University, Coimbatore-641003, Tamil Nadu, INDIA.

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ARIAS, Carlos M. (1933). Cit: Venezuela. Lang: Spanish, English. Acad Degrees: BSc Central Univ (1961); MSc Purdue (1968). Spec: Agronomy; maize, sorghum; improved varieties adaptation, yield. Exper: Research Asst, maize projects, Ministry of Agric and Livestock (1961-70); Head, Sub-Project PRIDA Research (1970-present). Title: Head, Sub-Project-PRIDA-Research. Address: Ministerio de Agricultura y Cria (M.A.C.), Torre Norte Piso 13 Caracas, VENEZUELA 101.

ARTURO, Vasquez S. (1943). Cit: Peru. Lang: Spanish, English. Acad Degrees: Ing. Puno (1967); Chapingo (1970). Spec: Rural development, genetics; maize, wheat; maize improvement, introduction of Opaque-2 gene. Exper: Professor, Universidad Nacional Agraria, La Molina; Leader, Pilot Project, Cajamarca La Libertad (PPCLL); Leader, Agric Experiment Station of Sierra Norte, Cajamarca. Title: Coordinator General of the EEA and PPCLL. Address: Jiron Lima No. 560, Apartado 169, Cajamarca, PERU.

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ASHRI, Amram (1929). Cit: Israel. Lang: Hebrew, English, (Spanish). Acad Degrees: BSc (1954) and PhD (1957) California. Spec: Genetics and breeding; groundnuts, safflower, sesame; breeding improved varieties, germ plasm resources, mutation induction, proteins, oils, cytoplasmic inheritance. Exper: Graduate student research on field crops (California) (1954-57); Instructor, then Lecturer, and now Assoc Professor of Genetics and Plant Breeding, Hebrew Univ (1954-75); Research Assoc, Fundamental Genetics, Illinois (1965); Chairman of several and member of other genetics and breeding, and teaching committees at Hebrew Univ; Acting Dean of Agric, Hebrew Univ (summers of 1972 & 1973); Visiting Professor, Agronomy, Florida (1974-75); participated in 12 international conferences in the Americas, Europe and Israel; on several committees, panels, and councils of the Israel Ministry of Agric. Title: Assoc Professor of Genetics and Breeding. Address: Faculty of Agric, The Hebrew Univ, P.O. Box 12, Rehovot, ISRAEL.

ATTFIELD, Harlan H. D. (1945). Cit: U.S.A. Lang: English, Yoruba, Amharic, Creole. Acad Degrees: BA California State (1970); MSc California State (1970). Spec: Entomology, apiculture, small livestock; microfarming, apiculture, small stock, agric extension. Exper: Agric Extensionist, Nigeria (1966-68); Supervisor, Animal Husbandry, Boy Scouts of America, Berkeley, Calif (1968-70); Curator of Entomology, Calif State College (1968-70); Natural Science Docent, Oakland Museum (1969-70); Assoc Director, Peace Corps Ethiopia (1970-71); Agric Program Technical Representative (1971-72); Rural Youth Specialist/Apiculturist (1972-74); 17 papers and 15 books published; traveled extensively in West/North Africa, Middle East, Mascarene Islands, Europe, U.S.A., Mexico and Canada. Title: Agricultural Extensionist and Extension Apiculturist. Address: 1035 Ventura Avenue, Albany, California 94706, U.S.A.

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AVILA, Gonzalo L. (1939). Cit: Bolivia. Lang: Spanish, English, Italian. Acad Degrees: Ing Agric Universidad de San Simon (1964); Dr. in Genetics, Milan Univ (1969). Spec: Plant breeding and genetics; maize, beans; cultivars and hybrids. Exper: Research Asst, maize (1964-65); Asst Professor Genetics, San Simon Univ (1965-66); Maize Breeder, Minoprio Institute (1969-70); Director, Centro Fitotecnico y Ecogenetico de Pairumani (1971-present); Professor, Selection Theory and Molecular Biology,

San Simon Univ (1972-present); 14 conferences in Europe and South America. Title: Director, Centro Fitotecnico y Eco-genetico de Pairumani. Address: Centro Fitotecnico de Pairumani, Casilla 128, Cochabamba, BOLIVIA.

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AYBAK, Husnu Cinar (1938). Cit: Turkey. Lang: Turkish, English, French. Acad Degree: BSc Ankara (1959). Spec: Agronomy; beans, grain legumes, tomatoes, vegetables, soybeans; improvement and experimentation (legumes and tomatoes). Exper: Research Asst, wheat (1961-64); soybeans (1961-66); legumes (1962-71); tomatoes (1962-71); sunflowers (1961-65); rice (1962-64), flax (1962-65); fertilizer experiments (1961-71). Title: Director, Igdir Agric Research Station. Address: Zirai Arastirma Istasyonu, Igdir-Kars, TURKEY.

AYONOADU, Uriel W. (1942). Cit: Nigeria. Lang: Engenni, Ibo, Efil, English. Acad Degrees: BSc Ibadan (1966); MSc Wales (1968); PhD Wales (1970). Spec: Plant breeding, cytogenetics; beans, maize, barley, cowpeas; disease resistance, maize genetics. Exper: Research Asst, maize and rye (1966-70); In Charge, Bean breeding (1970-present). Title: Lecturer in Plant Breeding and Cytogenetics. Address: Bunda College of Agric, Univ of Malawi, P.O. Box 219, Lilongwe, MALAWI.

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BAKER, Andrew Austin (1941). Cit: U.K. Lang: English, Swahili. Acad Degree: BSc (Hons) Bath Univ of Technology (1965). Spec: Entomology, microbiology; maize, sorghum, millet, wheat, groundnuts, pulses; post-harvest protection of crops with special reference to the African subsistence farmer. Exper: Stored Products Entomologist, Kenya (1967-72); travel to Tanzania; conference in Nigeria; feasibility study in Southern Region of Sudan; Title: Crop Storage Officer. Address: Bvumbwe Research Station, P.O. Box 5748, Limbe, MALAWI.

BAKER, E. F. I. (1932). Cit: U.K. Lang: English. Acad Degree: BSc London. Spec: Agronomy; maize, yams; plant population studies, farming systems. Exper: 15 yrs tropical food and cash crops, Western Nigeria; miscellaneous conferences and symposia within Nigeria. Title: Principal Research Fellow and Head of Agronomy Section. Address: Institute for Agric Research, Ahmadu Bellow Univ, Samaru, Zaria, North Central State, NIGERIA.

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BALAL, Mohamed Sayed (1936). Cit: Egypt. Lang: Arabic, English, French, Japanese. Acad Degrees: BSc Ein-Shams Univ (1958); MSc Ein-Shams (1962); PhD Tokyo Univ (1967). Spec: Genetics and plant breeding; rice; developing high yield rice varieties. Exper: Research Worker, rice (1967-72); Senior Breeder, Rice Research Section (1972-present); Professor of Developmental Genetics, Cairo Univ (1969-present); special training, SIDA/FAO/IAEA (1971), IRRI (1971); several international rice research conferences. Title: Senior Breeder. Address: Rice Research Station, Field Crops Research Institute, Agric Research Center, Orman, Giza, EGYPT.

BALAOING, Valentino G. (1932). Cit: Philippines. Lang: Tagalog, Ilocano, Pangasinan, Pampango, Ilongo, English, Spanish. Acad Degree: BSA Philippines (1957). Spec: Plant pathology, agronomy; potatoes, beans, cabbage; breeding and pest control. Exper: Research Asst, plant pathology (1957-58); Project Leader, research and production of potatoes (1959-present); one yr training in potato breeding and culture, Simla and Patna, India; one yr academic and field training in plant pathology and seed technology, Texas A&M, and Mississippi State Univ. Title: Agronomist III and Project Leader, Irish Potato. Address: Bureau of Plant Industry, P.O. Box 34, Baguio City B-2-2, PHILIPPINES.

BALLON, Federico B. (1929). Cit: Philippines. Lang: Tagalog, English. Acad Degrees: BSc Philippines (1956); graduate study (1972). Spec: Plant breeding; soybeans and field legumes; protein quality and quantity. Exper: Research and legume breeding in Philippines; Superintendent of Experiment Station; Research Coordinator at Economic Garden Experiment Station; several international conferences and training sessions in Asia and U.S.A. Title: Chief, Horticulture Section. Address: Bureau of Plant Industry, San Andres, Manila, PHILIPPINES.

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BARBOSA, Helio M. (1940). Cit: Brazil. Lang: Portuguese, English. Acad Degrees: Eng Agr Vicosa (1963); PhD Purdue (1971). Spec: Genetics, plant breeding; maize; protein quantity and quality. Exper: Research with mutants affecting protein and carbohydrate in maize endosperm; teaching genetics; Head, Biology Dept. Title: Asst Professor. Address: Department de Biologia, Univ Federal de Vicosa, Vicosa, Minas Gerais, BRAZIL.

BARQUERO, Humberto T. (1942). Cit: Nicaragua. Lang: Spanish. Acad Degrees: Ing Agr Monterey, Mexico (1964); MSc Chapingo (1966). Spec: Plant breeding; maize; improvement and yield. Exper: Professor, Research (1967-72); Director, Agric Research (1972-73); Director, National School of Agric and Livestock (1973-present). Title: Director. Address: Escuela Nacional de Agricultura y Ganaderea, Apartado 453, Managua, NICARAGUA.

BARRIGA, Celio S. (1929). Cit: Mexico. Lang: Spanish, English. Acad Degrees: Ag Eng Escuela Superior de Agricultura (1954); MSc Michigan State (1959); PhD Mississippi State (1966). Spec: Plant breeding; soybeans, beans, chickpeas; soybean seed production adapted to short day region. Exper: Research in soybeans, beans, and chickpeas. Title: Research Agronomist INIA. Address: Centro de Investigaciones Agricolas del Noroeste (CIANO), Apartado Postal #515, Ciudad Obregon, Sonora, MEXICO.

BARRIGA-OLIVARES, Rodolfo (1928). Cit: Colombia. Lang: Spanish, English, French. Acad Degrees: BSc Universidad Nacional, Medellin (1952); MSc Turrialba (195); PhD North Carolina State (1965); Spec: Plant pathology, nematology; potatoes, cacao, tomatoes, coffee, rice; genetic resistance to nematodes, chemical control of plant diseases. Exper: Research Asst, coffee (1955-56); Research Asst, plant pathology (1956-61); Principal Plant Pathologist, I.C.A. (1965-68); Director, Plant Pathology I.C.A. (1969-74). Title: Director, Program of Plant Pathology, I.C.A. Address: Instituto Colombiano Agropecuario; Aptdo aereo 151123; Bogota, COLOMBIA.

BARRIGA, Patricio (1939). Cit: Chile. Lang: Spanish, Portuguese, English. Acad Degrees: BSc Chile (1962); MSc Brazil (1971). Spec: Agronomy, cereal breeding, genetics; wheat, maize, barley; plant ideo-type toward the efficiency of production, protein quantity and quality. Exper: Student in training, wheat (1960-61); Extension and Technical Asst in Cereal Crops (1962-68). Title: Assoc Professor of Cereal Crops and Genetics. Address: Instituto de Produccion Vegetal, Universidad Austral de Chile, Casilla 567, Valdivia, CHILE.

BARRIOS, Alfredo (1928). Cit: Venezuela. Lang: Spanish, English. Acad Degree: Ing Agron Univ of Central Venezuela (1955). Spec: Agronomy; beans, grain legumes, soybeans; cultural practices. Exper: Research Asst, beans (1957-64); Research Asst, beans, grain legumes, soybeans (1965-69); Research Officer, National Bean Program (1970-present). Title: Ingeniero Agronomo. Address: Centro Nacional de Investigaciones Agropecuarias (CENIAP) Maracay, VENEZUELA.

BARRY, B. Dean (1934). Cit: U.S.A. Lang: English. Acad Degrees: BSc Missouri (1960); MSc Missouri (1961); PhD Texas A&M (1964). Spec: Entomology; maize, sorghum, millet; host plant resistance, biology and ecology of insects, vocational agriculture. Exper: Research Entomologist, USDA-ARS (1964-present);

Asst and Assoc Professor, OARDC and OSU, work on European corn borer, chemical control of slugs (1964-69); EAAFRO, Uganda, resistance in sorghum to shoot fly (1969-71); Scientific Research Commission, OAU, maize and sorghum insects (1972-present); international conferences in India, Malawi. Title: Research Entomologist. Address: Institute of Agric Research, Ahmadu Bello Univ, PMB 1044, Zaria, NIGERIA.

BASSIOUNI, Ahmed Awad (1939). Cit: Egypt. Lang: Arabic, English. Acad Degrees: BSc Alexandria Agric (1964); MSc Azhar Agric (1971); Candidate for PhD, Tanta Agric. Spec: Plant pathology; wheat; wheat rusts, epidemiology of wheat rusts. Exper: Research Asst, Cereal Diseases Dept, Sakaha Research Station, El-Sheikh (1965-present); training programs: diseases of wheat at CIMMYT (Mexico), Cereal Rust Lab (U.S.A.), Yellow Rust Lab (England), and Institute of Phytopathological Research (Wageningen, Netherlands). Title: Assoc Teacher, Agric Research Center, Egypt. Address: Sakha Agric Research Station, Kafr El-Sheikh, EGYPT.

BASTIDAS, Gilberto (1942). Cit: Colombia. Lang: Spanish. Acad Degrees: Ing Agr Colombia (1966); MSc Colombia (1973). Spec: Breeding, physiology; soybeans, dry beans, mungbeans, cowpeas; use of breeding and physiology to increase yield of grain legumes. Exper: Research Officer, soybeans, dry beans, and mungbeans (1967-present); Professor National Univ (1972); 4 conferences South and Central America. Title: Research Officer, Grain Legume Program ICA. Address: Centro Experimental Palmira, Apartado Aereo 233. Palmira, (Valle), COLOMBIA.

BATES, Lynn S. (1940). Cit: U.S.A. Lang: English, Spanish. Acad Degrees: BSc Heidelberg College (1962); MSc Purdue (1966); PhD Kansas (1972). Spec: Biochemistry, grain technology, genetics; cereals, grain legumes, root crops; protein quality and quantity. Exper: Instructor-Analyst, biochemistry, Purdue Univ (1966); Biochemist and Head Protein Quality Laboratory, CIMMYT (1966-68); 5 conferences in U.S.A. and Mexico (1966-present). Title: Asst Professor. Address: Dept of Grain Science and Industry, Kansas State Univ, Manhattan, Kansas 66506. U.S.A.

BEDELL, James K. (1929). Cit: Liberia. Lang: Kru, English. Acad Degrees: BSc Prairie View, Texas (1958); MSC Tuskegee Institute (1960). Spec: Animal science; rice, rubber, coffee, cocoa, oil palm; extension organization, supervision and management. Exper: Extension Poultry Officer (1961); Head of Animal Division at Suakoko (1962-64); Deputy Director of Extension (1965-present). Title: Deputy Director of Extension. Address: Extension Service, Ministry of Agric, Monrovia, LIBERIA.

BENITEZ, Jose R. (1946). Cit: Peru. Lang: Spanish, English. Acad Degrees: BSc La Molina (1967); MSc LaMolina (1974). Spec: Soils, statistics; maize, sugarcane; fertilizer, water, crop management. Exper: Asst, International Project of Soil Analysis (1957-59); Agronomist, cooperative maize research program (1970-74); Chief, Plant Breeding Dept (1970-73); Assoc Professor, Plant Breeding Dept (1973-present); attendance at several Latin American conferences. Title: Agronomist, PCIM, and Agronomic Project Leader. Address: Universidad Nacional Agraria-LaMolina, Apartado 456, Lima, PERU.

BERGONIA, Hilario T. (1933). Cit: Philippines. Lang: Ilocano, Tagalog, English. Acad Degree: BSc Philippines (1956). Spec: Plant pathology; rice, maize, vegetables, fruits; disease resistance, chemical control. Exper: Research Asst (1956-58); Plant Pest Control (1958-60); Junior Plant Pathologist (1960-61); Chief, Plant Pest Control (1961-62); Senior Plant Pathologist (1962-71); Chief, Plant Pathologist (1971-present); training in plant pathology, U.K. (1958), crop protection, Japan (1961), and citrus virus diseases, Philippines (1965); two symposia at IRRI; South East Asia crop protection conference, Noumea (1969); training in seed pathology under Danish Government (1969). Title: Chief Plant Pathologist. Address: Bureau of Plant Industry, Manila, PHILIPPINES.

BERNARDO, Fernando A. (1932). Cit: Philippines. Lang: Filipino, English. Acad Degrees: BSA College of Agric Philippines (1955); MSc Philippines (1958); PhD North Carolina State (1962). Spec: Genetics, plant breeding, agronomy; manila hemp, coconuts, maize, sorghum; genetic improvement of crops, natl systems of education and research in agric. Exper: In Charge, Abaca Improvement Program (1955-63); Coconut Improvement Program (1962-65); Director of Graduate Studies (1969-73), at present Professor of Agronomy. Title: Dean, Univ of the Philippines, College of Agric. Address: Univ of the Philippines, College, Laguna, PHILIPPINES.

BESSA, Marcelo G. (1936). Cit: Brazil. Lang: Portuguese. Acad Degree: BSc (1962). Spec: Agronomy; cassava; variety introduction, variety trials. Title: Chief, Roots and Tubers Division. Address: Instituto de Pesquisas Agronomicas (IPA), Estacao Experimental de Cedro, Victoria de Santo Antao, Pernambuco, BRAZIL.

BEZUNEH, Taye (1937). Cit: Ethiopia. Lang: Ethiopian (Amharic), English. Acad Degrees: BSc HSIU College of Agric (1960); MSc Hawaii (1963); MSc Florida (1969). Spec: Horticulture, plant physiology; peppers, tomatoes, phytolacca, root staple food crops; staple food, food fortification and bilharzia disease control; Exper: Research Asst Vegetable crops (1960-61); Lecturer and research on horticultural crops (1963-65); Asst Professor of Horticulture and Plant Physiology, and conducted research on horticultural crops (1969-72). Title: Director and Asst Professor. Address: Debre-Zeit Agric Experiment Station, P.O. Box 32, Debre-Zeit, ETHIOPIA.

BHARDWAJ, Bhup D. (1931). Cit: India. Lang: Hindi, Urdu, English. Acad Degrees: BSc Delhi (1953); MSc IARI (1960); PhD Minnesota (1965). Spec: Plant Breeding, genetics; millet (pearl), maize, sorghum; improvement and production of food crops. Exper: Over 18 yrs field experience in crop improvement and production, involving cereals, forages, vegetable crops; planning and execution of research and production programs on country and regional levels; travel in Africa, Near East, and Asia to advise in formulation and execution of crop improvement and production programs. Title: Regional Consultant (Summer Cereals). Address: FAO, NE Regional Office, Sharia Kasr El Aini, P.O. Box 2223, Cairo, EGYPT.

BHARGAVA, Suresh (1936). Cit: India. Lang: Hindi, English, Dutch. Acad Degrees: BSc Univ of Delhi (1957); MSc Wageningen, Holland (1961); DSc Wageningen (1964). Spec: Reproductive and crop physiology, agronomy; maize, rice, soybeans, oilseed crops; environmental control of growth, development and yield of field crops, crop physiology. Exper: Agric Extension Officer, (1957); Fellow, International Agric Centre, Holland (1957-61); Research Officer, Wageningen (1962-64); Research Officer and Plant Physiologist, IARI (1965-70); Head, Plant Physiology, Tanzania (1971); Acting Chief Research Officer, Ministry of Agric, Tanzania (1972); Coordinacion of Crop Research Tanzania (1973-present). Title: Senior Research Officer. Address: Crop Development Division, Ministry of Agric, P.O. Box 9152, Dar es Salaam, TANZANIA.

BHATT, Gavatriprasad M. (1927). Cit: Australia. Lang: English, Hindi, Gujarati, Marathi, Sanskrit, French, German. Acad Degrees : BSc Bombay (1949); MS Wisconsin (1964); PhD Wisconsin (1965). Spec: Genetics, plant breeding; wheat, cotton, soybeans, flax, sorghum, legumes; quantitative genetics, plant breeding. Exper: Research and Teaching Asst, Univ of Wisconsin (1962-65), Assoc Professor of Plant Breeding, Punjab Agric Univ (1965-67); Plant Breeder, Univ of Sidney (1967-present); guiding graduate research, extension work (5 yrs); research administration (8 yrs). Title: Senior Geneticist and Plant Breeder. Address: Univ of Sidney, Plant Breeding Institute, Narrabri, New South Wales 2390, P.O. Box 219, AUSTRALIA.

BHATTARAI, Achyuta N. (1940). Cit: Nepal. Lang: Nepali, Hindi, English. Acad Degrees: BSc (Agric) (1960); MSc (Agron) 1966). Spec: Agronomy; rice, wheat; research. Exper: CIMMYT wheat training; agronomy. Title: Coordinator, National Wheat Program. Address: Botany Section, Khumaltar, Lalitpur, P.O. Box 404, G.P.O. Kathmandu, NEPAL.

BHATTI, Abdul G. (1924). Cit: Pakistan. Lang: Punjabi, Urdu, English, Persian, Arabic. Acad Degrees: BSc Punjab (1944); MSc Punjab (1952); PhD Texas A&M (1959). Spec: Agronomy, plant breeding, plant pathology; coarse grains, forages, grasses. Exper: Research Asst (1944-57); in charge of research on fodder, pulses, grasses (1960-70); Director, Maize and Millet Improvement Project (1970-present); numerous international conferences; special courses in seed improvement at Mississippi, Illinois and Minnesota; several research papers. Title: Chief Agronomist. Address: P.O. Box 62, Lyallpur, PAKISTAN.

BIRD, Julio (1924). Cit: U.S.A. Lang: Spanish, English, Portuguese. Acad Degrees: BSc Puerto Rico (1948); MSc Minnesota (1950); PhD Minnesota (1957). Spec: Plant pathology; beans, cowpeas, wild legumes; insect transmission of plant viruses. Exper: Many international visits and consultations; attended meetings of the American Phytopathological Society. Title: Director, Dept of Plant Pathology and Botany. Address: Agric Experiment Station, P.O. Box H, Rio Piedras, Puerto Rico, U.S.A.

BIRD, William (1940). Cit: Nicaragua. Lang: Spanish, English. Acad Degree: Ing Agron, National School of Agric, Nicaragua (1963). Spec: Agronomy; rice; variety testing, yields. Exper: Preparation of technical papers for international meetings; conducting seminars. Title: Asst, Rice Program. Address: National Bank of Nicaragua, Technical Dept, Managua, NICARAGUA.

BISWAS, Sudhamony (1936). Cit: India. Lang: Bengali, English, Hindi, Japanese. Acad Degrees: BSc West Bengal (1958); MSc Calcutta (1960); PhD Tokyo (1964). Spec: Varietal improvement; rice; varietal adaptability, crop-weather relationship, disease resistance, gene-ecology, mutation breeding. Exper: Teacher (1960-61); Research Fellow (1961-65); radiation in crop improve-

ment training (1962); rice research training (1964-65); Asst Professor (1965-71); training in rice production (1968-69); Rice Breeder, AICRIP (1971-present); extensive travel and conferences in Southeast Asia. Title: Rice Breeder. Address: Regional Rice Research Station (AICRIP), Rice Research Station, Chinsura, Dist. Hooghly, West Bengal, INDIA.

BLACUT, Angel S. (1929). Cit: Bolivia. Lang: Spanish, English. Acad Degrees: BSc Cochabamba, Bolivia (1953); MSc Nebraska (1959). Spec: Agronomy, plant breeding; maize, sorghum; production and improvement of maize and sorghum. Exper: in charge of maize and sorghum research, Nicaragua (1954-57) (1961-67); Coordinator, Central American Cooperative Program for Food Crops (1959-67); Professor of Genetics and Plant Breeding (1963-67); Director Seed Operations for Central America (1967-present); maize improvement training at Rockefeller Foundation, Mexico. Title: Director, Central American Seed Operations. Address: Dekalb Agric Research Inc., Aptdo 3242, Managua, NICARAGUA.

BLAIR, Gaston P. (1921). Cit: Trinidad and Tobago. Lang: English, French. Acad Degrees: BSc McGill (1945); MSc Wisconsin (1951); PhD Wisconsin (1963). Spec: Botany, plant pathology, general agriculture; coconuts, citrus, rice; propagation (nursery work), other horticultural crops, red ring disease of coconuts, agricultural development. Exper: Agric Extension Officer, North Trinidad (1947-51); Director of Agric, St. Lucia, W.I. (1951-52); Manager, St. Augustine Nurseries and Superintendent, Gardens and Pastures (1953-55); Economic Botanist (1955-58); Botanist, Red Ring Research (1958-63); Technical Officer and Acting Head, Research Division (1960-61). Title: Director, Red Ring Research. Address: Red Ring Research Division, Ministry of Agric, Centeno, TRINIDAD.

BOCANEGRA, Salazar Santiago (1914). Cit: Peru. Lang: Spanish. Acad Degree: Ing Agron (1937). Spec: Agronomy; maize, beans, peas; cultural practices, disease resistance. Exper: 5 yrs management of sugarcane production; 28 yrs research on maize and grain legumes; Asst in Genetics (1944-48); Deputy Chief of Dept (1948-49); Dept Head (1950-57); Coordinator of Bean Program (1958-70); Agric Supervisor (1971-74). Title: Deputy Director and Agric Supervisor. Address: Direccion General de Investigacion Agraria, Aptdo 2791, Lima, PERU.

BOKDE, Shrawan (1931). Cit: Argentina. Lang: Spanish, English, Hindi, Marathi. Acad Degrees: BSc Nagpur (1952); Assoc IARI (1955); MSc Wisconsin (1958); PhD Wisconsin (1961). Spec: Plant breeding and production; maize; genetics and plant breeding, plant physiology and nutrition. Exper: Research in maize population improvement methods, developing inbreds, hybrids and their testing; cytoplasmic male sterility, high density and disease resistance; teaching; experience in India and Argentina; several papers published in technical journals; several international conferences. Title: Corn Improvement Specialist. Address: Estacion Experimental Reg. Agropecuaria-INTA-C.C. 31 Pergamino (Pcia. Buenos Aires), ARGENTINA.

BOLTON, Arthur (1921). Cit: U.K. Lang: English, Swahili. Acad Degrees: BSc Durham (1942); MSc Durham (1955). Spec: Plant breeding, agronomy; maize, sorghum; varietal response to environment and fertilizer. Exper: Beet Breeder (1946-48); Maize and Wheat Breeder in Kenya (1948-51); Tobacco Breeder, Rhodesia (1951-55); teaching (1955-56); maize and sorghum, Tanzania (1966-70); maize, Malawi (1971-74); many conferences in Africa. Title: Principal Scientific Officer, ODA Corps of Specialists. Address: c/o Overseas Development Administration, Leland House, Stag Place, London SW1E 5 DH, ENGLAND.

BON, Michel (1919). Cit: France. Lang: French, Spanish. Acad Degrees: BSc Baccalaureat-General Certificate of Education (1937); MSc Ecole Nationalle Superieure Agronomique (1942). Spec: Agronomy, economy, management; cereals, wheat, barley, maize; economic and scientific strategy required for the early adoption of improved technology. Exper: Director, Cooperative Cereals and Agric Produce (1945-48); Director Agric Society for Land Management (1949-60); research dept management for agric development (1961-67); Professor of Agronomy and Economics in Colombia (1967-72). Title: Head, Dept for Development of Cereals. Address: SATEC - BP 39. El Mouradia, ALGERIA.

BONNEFIL, Leonce (1919). Cit: Haiti. Lang: French, English, Spanish. Acad Degrees: BSc Haiti (1942); MSc Iowa State (1944); PhD Iowa State (1971). Spec: Zoology, entomology; dry beans, corn, vegetables; ecology of crop pests. Exper: Teaching and Research Asst, Dept Agric of Haiti (1945-47); Chief Entomologist (1947-64); FAO Agric Officer, Teaching and Research Center, Costa Rica (1964-68); Research Assoc, corn insects, Iowa State (1968-71). Title: Chief, Pesticides Program (Division of Ecology). Address: Dept of Natural Resources, P.O. Box 5887, Puerta de Tierra, Puerto Rico 00906, U.S.A.

BONILLA LEIVA, Nevio (1931). Cit: Costa Rica. Lang: Spanish, English. Acad Degrees:

Ing Agron, Univ of Costa Rica (1959); MC Chapingo (1971). Spec: Genetics; grain legumes; plant breeding. Exper: Maize, sorghum; cultural improvement, seed production, training, introduction of legume varieties. Title: Head of Research on Maize, Sorghum and Oil Crops. Address: Departamente de Agronomia, Ministerio de Agricultura y Ganaderia, San Jose, COSTA RICA.

BOON, Hock Chew (1941). Cit: Malaysia. Lang: Malay, English, Mandarin. Acad Degree: BSc Malaya (1967). Spec: Genetics, botany; rice; high yield, pest and disease resistance breeding of rice. Exper: Rice Breeder (1968-present); 2 conferences at IRRI (1971 and 1974); research counterpart in Japan (1973); visited agric research institutes in Japan, Taiwan, Philippines and Thailand. Title: Rice Research Coordinator. Address: Rice Research Centre, Bumbong Lima, Kebala Batas, Province Wellesley, WEST MALAYSIA.

BOON-LONG, Siribongse (1916). Lang: Thai, English. Acad Degrees: BSc Cornell (1937); PhD Cornell (1940). Spec: Plant physiology; rice; grain storage. Exper: Represented Thailand at FAO conferences and meetings; Chairman, SEATO Expert Panel on Agric Research; research on culture and manufacture of tobacco; Poultry Breeder; Tropical Fruit Expert; Orchardist; mushroom research; personnel administration; agric chemical sales. Title: Inspector-General (Research Coordinator for Agric Centers). Address: Ministry of Agriculture and Cooperatives, Bangkok, THAILAND.

BOONSUE, Banjerd (1933). Cit: Thailand. Lang: Thai, English. Acad Degrees: BS Kasetsart (1956); MSc Cornell (1961); PhD Purdue (1967); Spec: Plant breeding, agronomy; sorghum, rice, legumes, forage crops; sorghum breeding, forage crop management. Exper: Asst Professor of Plant Science; forage crop improvement Project Leader (1961-64); sorghum breeding, Project Leader (1967-present). Title: Head, Dept of Plant Science; Address: Kasetsart Univ, Bangkok, THAILAND.

BORTHAKUR, Dhirendra N. (1928). Cit: India. Lang: Assamese, Bengali, Hindi, English, German. Acad Degrees: BSc Gauhati (1948); MSc Gauhati (1950), PhD Missouri (1963). Spec: Plant breeding, genetics, agronomy; rice, pulses; grain yield, quality, crop sequence. Exper: Asst Mycologist (1951-52); Lecturer (1951-59); Professor (1959-63); Economic Botanist (1963-65); Rice Specialist (1965-69); Director of Research (1969-present); traveled and studied in U.S.A., Japan, Philippines, Taiwan; attended several conferences; author of two books and 47 papers. Title: Director of Research. Address: Assam Agric Univ, Jorhat-785013, Assam, INDIA.

BOUATTOURA, Nouredine (1942). Cit: Algeria. Lang: French, Spanish, English. Acad Degrees: BSc College of Agric (1963); MSc Institute of Agronomy (1966). Spec: Plant breeding, agronomy; wheat, barley, forage crops, maize, sorghum; durum wheat breeding, genetics, chemistry. Exper: Range management and forage crops, experimentation and research, in arid zones; ecology of natural pastures. Title: Head of Plant Breeding Dept. Address: C.N.R.A. BP 80 El-Harrach, Algiers, ALGERIA.

BOULTER, Donald (1926). Cit: U.K. Lang: English, French. Acad Degrees: BA Oxford (1951); MA Oxford (1953); PhD Oxford (1953). Spec: Botany, biochemistry; horse beans, cowpeas, beans, mungbeans, peas, rice, barley; protein quantity and quality, structure, biosynthesis, nutritional quality, use of plant proteins. Exper: Univ teaching and research at Oxford, King's College, Liverpool and Durham Universities (1951-present); cooperative program with IITA, Ibadan, Nigeria; 7 conferences in Europe, Africa, and U.S.A. Title: Professor and Head, Dept of Botany. Address: Univ of Durham, Dept of Botany, Science Laboratories, South Road, Durham DH1 3LE, ENGLAND.

BRADWELL, Christopher J. (1946). Cit: U.K. Lang: English. Acad Degrees: BSc Leicester (1967); MSc London (Wye College) (1969); Spec: Plant breeding, agronomy; maize, sorghum, millets; yield, pest and disease resistance, protein quality. Exper: Research Asst, apple storage physiology (1968); Plant Breeder, maize and other cereals (1969-present); Maize Coordinator (1969-present); Asst Lecturer, plant breeding (1972-73); one conference, Africa. Title: Plant Breeder, Maize and Other Cereals. Address: Mount Makulu Research Station, P.O. Box 7, Chilanga, ZAMBIA.

BRAVO, Alonso E. (1937). Cit: Chile. Lang: Spanish, English. Acad Degrees: Ing Agr Chile (1962); MSc Cornell (1967). Spec: Plant breeding, vegetable crops, plant pathology; dry beans, onions, melons, squash, chickpeas; yield, disease resistance, protein content. Exper: Research Asst, corn (1962-65); Asst Professor, vegetable crops (1967-present); Director agric experiment station (1968-70); Head, Plant Science Dept (1970-72); conferences in Argentina, West Germany, U.S.A., and India; currently candidate for PhD at Cornell. Title: Professor, School of Agronomy. Address: Departamento de Fitotecnica, Universidad Catolica, Casilla 114-D, Santiago, CHILE.

BRAVO, Jose Manuel (1949). Cit: Nicaragua. Lang: Spanish. Acad Degree: Ing Agron, National School of Agric (1973). Spec: Rice yield improvement. Exper: Asst, rice research program, Ministry of Agric, one yr. Title: Asst, Rice Improvement Program. Address: Apartado 453, Escuela Nacional de Agricultura y Ganaderia, Managua, NICARAGUA.

BROOK, Charles Edward (1940). Cit: U.K. Lang: English, French. Acad Degrees: BSc (Hons) London Univ (1962); Diploma Agric, Cambridge (1963); DTA Univ West Indies (1964). Spec: Agric; maize and other subtropical cereals and grain legumes; cultivation techniques for field crops. Exper: Agronomist and Research Officer in Zambia, 6 yrs; Crop Agronomist and later Chief Research Officer, Swaziland Research Division, 4½ yrs. Title: Leader in Agric Research, UBLS. Address: Malkerns Research Station, P.O. Box 4, Malkerns, SWAZILAND.

BUHR, Kenneth L. (1942). Cit: U.S.A. Lang: English, Spanish, Portuguese. Acad Degrees: BSc Iowa (1964); MSc Iowa (1971). Spec: Plant breeding, plant physiology, agronomy; soybeans, beans, cowpeas, other grain legumes; increase in seed yield under tropical conditions. Exper: Peace Corps, Brazil (1965-67). Graduate Teaching Asst in Agronomy, Iowa State Univ (1968-71); Coordinator of grain legume investigations at CIAT (1971-72); Instructor in crop production, Iowa State Univ (1973-present). Title: Instructor. Address: Dept of Agronomy, Iowa State Univ, Ames Iowa 50010, U.S.A.

BUNTING, Arthur H. (1917). Cit: U.K. Lang: English, French, German, Arabic. Acad Degrees: BSc Univ of Witwatersrand (1936); MSc Witwatersrand (1938); PhD Oxford (1941). Spec: Botany, plant physiology, ecology; groundnuts, other grain legumes, sorghum, maize; physiology and environmental relations of growth and yield. Exper: Asst Chemist, Experiment Station (1941-45); Member, Human Nutrition Research Unit (1945-47); Chief Scientific Officer, Overseas Food Corporation (1947-51); Senior Research Officer, Sudan Ministry of Agric (1951-56); Professor of Agric Botany, Reading (1956-73); Dean, Faculty of Agric and Food (1965-71); Foundation Trustee and Chairman of Research Committee, IITA, Nigeria (1968-72); extensive travel in Africa; numerous publications. Title: Professor of Agric Development Overseas. Address: Plant Science Laboratories, Univ of Reading, Whiteknights, Reading, ENGLAND, RG6 2AS.

BURANAPAWANG, Saner (1934). Cit: Thailand. Lang: Thai, English. Acad Degree: BSc Kasetsart (1959). Spec: Entomology; rice; toxicology. Exper: Research Asst (1959-63); training, Taiwan (1960), IRRI (1963-64), Arkansas (1968-69), and Japan (1973); conference, IRRI (1974). Title: Research Officer, Rice Pests Branch. Address: Entomology and Zoology Division, Bangkhen, Bangkok, THAILAND.

BUSTAMANTE, Elkin (1937). Cit: Colombia. Lang: Spanish, English, French. Acad Degrees: BSc National Univ (1960); MSc Iowa State (1967); PhD Iowa State (1972); Spec: Plant pathology, plant breeding; oats, wheat, maize; resistant cultivars. Exper: Plant Protection Pathologist (1961-62); Research Asst, oats, (1962-68); Director, Plant Protection Division (1968-69); Research Officer, wheat (1972-present). Title: Research Plant Pathologist, Small Grain Diseases. Address: Colombian Agric Institute, A.A. 7984, Bogota, COLOMBIA.

CADA, Esteban Cabanela (1907). Cit: Philippines. Lang: Ilocano, Tagalog, Pangasinan, English. Acad Degree: BSA Philippines (1935). Spec: Agronomy, plant breeding; rice, maize, soybeans; varietal improvement. Exper: Asst Instructor, UPCA (1935-43); Asst Agronomist, Bureau of Plant Industry (1956-58); Supervising Agronomist (1958-66); Rice Research and Training Director, Maligaya Rice Research and Training Center (1966-72); 12 conferences; numerous merit and honor awards (1953-72). Title: Rice Research and Training Director (Ret.). Address: Tayug, Pangasinan, PHILIPPINES.

CAESAR, Knud (1925). Cit: Germany. Lang: German, English, French. Acad Degrees: Dipl Agric, Hohenheim (1950); Dr Agric, Hohenheim (1954); Habil Gottingen (1966). Spec: Agronomy, crop science; potatoes, tropical root and tuber crops; physiology and ecology. Exper: Scientific Asst, General Field Crops (1950-57); Professor of Field Crops, College of Agric, Abu Ghraib Iraq (1957-59); Scientific Asst, sugar beets (1960-62); Adviser to Ceylon Government on potatoes, agric research (1962-65); Professor of Tropical Field Crops (1967-present). Title: Professor of Tropical and Subtropical Field Crops. Address: Technische Universitat Berlin, Institut fur Nutzpflanzenforschung - Ackerund Pflanzenbau - 1 Berlin 33, Albrecht-Thaer-Weg 5, W. GERMANY.

CAGAMPANG, Isaac C. (1932). Cit: Philippines. Lang: Visayan, Tagalog, English. Acad Degrees: BSc Philippines (1955); MSc Philippines (1964); PhD Purdue (1968). Spec: Crop production, management and soil fertility; field legumes, sorghum, maize, rice, ramie, jute, kenaf. Exper: Agronomist, private (1955-58); Research Instructor, U.P. (1958-62); rice extension specialist, U.P. (1964-65); Professor of Field Crops Production, U.P. (1968-present); Head of Annual Fiber Crops Research Section (1968-74). Title: Asst Professor. Address: Dept of Agronomy, Univ of the Philippines at Los Banos, College, Laguna, PHILIPPINES.

CAGLEVIC, Milan J. (1928). Cit: Chile. Lang: Spanish, English. Acad Degrees: Ing Agron, Univ of Chile (1955); MSc Wisconsin (1960); PhD candidate Cornell (1969-72). Spec: Plant pathology; wheat, small grains and corn; root rots of cereals, disease resistance. Exper: Professor of Plant Pathology (cereal and vegetable crops), Agronomy Schools, Chile and Catholic Univ (1956-73); President Chilean Phytopathological Society (1962-63-65-66-73-74); Carlos Porter Award as Most Outstanding Agronomist in Agric Science Research (1968); awards for two outstanding scientific papers on *Fusarium* root rot maize and lentil rust. Title: Head of Plant Pathology Project. Address: Instituto de Investigaciones Agropecuarias, Casilla 5427, Santiago, CHILE.

CALERO, Eduardo F. (1938). Cit: Ecuador. Lang: Spanish, English. Acad Degrees: Ing Agron Guayaquil; MSc Turrialba. Spec: Plant breeding; sesame, groundnuts, soybeans, castor beans. Exper: Research Chief on above crops (1963-present). Title: Oil Crops Research Chief, INIAP. Address: Estacion Experimental Boliche, Casilla 7069, Guayaquil, ECUADOR.

CALTAGIRONE, Leopoldo E. (1927). Cit: U.S.A. Lang: Spanish, English. Acad Degrees: Eng Agr Univ of Chile, Santiago (1951); PhD California (1960). Spec: Entomology; deciduous fruits, edible legumes; biological control, integrated control of agric pests. Exper: Entomologist, Chilean Ministry of Agric (1951-62); Junior, Asst and Assoc Entomologist, Univ of California (1962-present); AID Consultant (1972); Guest Lecturer at Univ of Nicaragua (1974). Title: Assoc Entomologist and Lecturer. Address: Division of Biological Control, Univ of California, 1050 San Pablo Avenue, Albany, California 94706, U.S.A.

CAMACHO, Luis Humberto (1928). Cit: Colombia. Lang: Spanish, English, French. Acad Degrees: Ing Agr Univ Nac, Colombia (1953); MSc Cornell (1958); PhD North Carolina State (1963). Spec: Plant breeding and statistics; soybeans, grain legumes; development of improved varieties. Exper: Research, grain legumes (1954-present); Director, grain legume program, ICA, Colombia (1964-present); Professor, Experimental Statistics (1964-72); Professor, Plant Genetics ICA-UN (1968-present); Visiting Scientist, IITA (1972-73); attended international conferences in nine countries. Title: Director, Grain Legume Program. Address: ICA, Apartado Aereo 233, Palmira, COLOMBIA.

CAMARGO, Carlos Eduardo de Oliveira (1945). Cit: Brazil. Lang: Portuguese, English. Acad Degrees: BSc Sao Paulo (1968); AgD Sao Paulo (1972). Spec: Breeding and agronomy; wheat, oats, barley, triticale; breeding for high yield, disease resistance, drought and aluminum tolerance, protein quantity and quality, fertilizer response. Exper: Research Officer, Wheat (1968-present). Title: Research Officer in charge, Wheat Investigations. Address: Instituto Agronomico de Estado de Sao Paulo, Caixa Postal 28 - 13.100, Campinas, SP, BRAZIL.

CANITEZ, Nihat (1930). Cit: Turkey. Lang: Turkish, English. Acad Degree: BSc Ankara (1953). Spec: Agronomy; beans, chickpeas, lentils; yield and fertilizer

response of beans. Exper: Extension Officer at sugar company (1954-55); Technical Asst, Ministry of Agric (1955-58); Research Asst at Seed and Plant Improvement Station, vegetables and grain legumes (1958-60); training on grain legumes in the U.S.A. (1961-62); Research Officer in charge of research on grain legumes in Turkey (1962-present); two conferences in Tehran. Title: Research Officer, Pulses. Address: Agric Research Station, P.K. 17, Eskigehir, TURKEY.

CARANGAL, Virgilio R. (1933). Cit: Philippines. Lang: Tagalog, English. Acad Degrees: BSA Philippines (1955); MSc Purdue (1958); PhD Minnesota (1966). Spec: Agronomy, genetics, plant breeding; maize, rice, sorghum, soybeans, peanuts. Exper: Asst Farm Superintendent (1955-56); Research Asst (1956-58); Instructor, Plant Breeding (1958-62); Research Asst (1962-66); Asst Professor, Plant Breeding (1966-73); Consultant (1968-69); Coordinator, Graduate Training and Research Development, upland crops (1968-73); National Coordinator, White Maize and Feedgrains Program (1971-73); Chairman, Maize Research Committee (1967-73); Director, Intensified Maize Production Program; Coordinator, Downy Mildew Program. Title: Deputy Executive Director, National Food and Agric Council, and Assoc Professor. Address: Dept of Agric and Natural Resources, Diliman, Quezon City and U.P., Los Banos, PHILIPPINES.

CARDONA, Canuto (1919). Cit: Colombia. Lang: Spanish, English. Acad Degrees: Ing Agron Medellin (1946); MA California (Davis) (1951); PhD Wisconsin (1956). Spec: Plant pathology, microbiology, plant breeding; grain legumes, beans, soybeans, cowpeas, peabeans; production and rural area development, protein quality. Exper: Research on beans, soybeans, cowpeas (1946-59); research administration (1959-68); agric planning (1968-70); administration and coordination of regional development projects (1971-present). Title: Technical Consultant on Rural Development. Address: Colombian Institute of Agric, Apartado Aereo 7984, Bogota, COLOMBIA.

CARMONA, Paulo S. (1938). Cit: Brazil. Lang: Portuguese, Spanish. Acad Degrees: Rio Grande do Sul (1964); Rio Grande do Sul (1968). Spec: Agronomy, genetic improvement; rice; genetic improvement of rice. Exper: Research Asst (1965-67); Principal Research Officer (1969-73); Administrator of Rice Experiment Station (1973-present). Title: Administrator of Rice Experiment Station. Address: Est. Exp. do Arroz, Caixa Postal 1927, Porto Alegre, BRAZIL.

CARPENTER, Alan J. (1934). Cit: U.K. Lang: English, French. Acad Degrees: MA Cambridge (1958); Dip Agric Sci Cambridge (1959). Spec: Plant breeding; rice. Exper: Rice Breeder, and Senior Lecturer (Crops), Univ Sierra Leone (1959-67); Agronomist, UNDP, Guinea (1967-69). Title: Agronomist. Address: U.N.D.P. Rice Project, P.O. Box 274, Monrovia, LIBERIA.

CARR, Stephen J. (1928). Cit: U.K. Lang: English, Runyankore, Lunyoro, Bari, Ka wa. Acad Degree: BSc Univ of London, Wye College (1951). Spec: Agronomy, development economics; sorghum, groundnuts, soybeans, potatoes; smallholder development. Exper: Lecturer in Agric, Nigeria and Sudan (1952-56); Project Director, Smallholder Development, Sudan (1956-62) and (1973-present); Director, Smallholder Tea Development, Uganda (1962-71); Director, Highland Crops Development (research and extension), Uganda (1971-72); IBRD consultant on smallholder development, Sudan (1973); 16 conferences in Africa, South America and U.K.; awarded the Medal of the Royal Africa Society for Services to Africa in 1972. Title: Project Director, Smallholder Development Project. Address: Ministry of Agric, Yei, Equatoria, SUDAN.

CARTER, Lark P. (1930). Cit: U.S.A. Lang: English. Acad Degrees: BSc Iowa State (1953); MSc Iowa State (1956); PhD Iowa State (1960). Spec: Agronomy and agric education; barley, wheat, forages; univ teaching and research. Exper: Forage crops research; foundation and production; univ teaching, agronomy; univ and agric experiment station administration; consultant to USAID/Ethiopia; Principal Investigator USAID-supported barley research program. Title: Professor of Agronomy. Address: College of Agric, Montana State Univ, Bozeman, Montana 59715, U.S.A.

CASCANTE, Julio F. (1945). Cit: Ecuador. Lang: Spanish, English. Acad Degree: Ing Agr Quito (1969). Spec: Weed control; maize, wheat, oats, barley, potatoes, grasses; temperate weather crops. Exper: Research Asst, ICA, Vegetal Program on Physiology and Weed Control, Colombia (1967-69); Training, National Univ, Bogota (1971); conferences in ALAF and COMALFI (1969-70). Title: Chief, Dept of Weed Control. Address: INIAP, Estacion Experimental, Santa Catalina, Apartado No. 340, Quito, ECUADOR.

CASSALETT DAVILA, Climaco (1926). Cit: Colombia. Lang: Spanish, English. Acad Degrees: BSc Colombia (1949); MSc Nebraska (1959); PhD Cornell (1965). Spec: Plant breeding; maize, sorghum; crop improvement. Exper: Maize Geneticist (1950-57); Head, Maize Section (1959-65); Director, "Turipana" Experiment Station (Monteria) (1965-66); National Director of Corn and Sorghum Program of ICA (1966-70); ICA General Manager of Research (1974-present); development of seven maize varieties and hybrids for the low land of Colombia; 12 international conferences; 27 publications. Title: ICA General Manager of Research. Address: Instituto Colombiano Agropecuario (ICA), AA, 7984, Bogota, COLOMBIA.

CASTILLIO, Luis Elias (1928). Cit: Peru. Lang: Spanish, English. Acad Degree: Universidad Agraria (1952). Spec: Agronomist; rice, oil crops; plant breeding. Exper: University teaching; research in rice; professional advising of students in rice cultivation and plant breeding. Title: Head of the Personnel Division and Ingeniero Agronomo. Address: Universidad Pedro Ruiz Gallo, Lambayeque, PERU.

CASTILLO, Luis Manlio (1921). Cit: Guatemala. Lang: Spanish, English. Acad Degree: BSc Iowa (1957). Spec: Agronomy; maize, rice, beans, potatoes, wheat, sorghum; fertilizer and herbicide use vs. hand labor or vs. mechanical substitution. Exper: Asst Technician, corn (1957-60); Agronomy Professor at agric institute (1960-62); Faculty of Agronomy (1963); Chief, Basic Food Crops (1963-66); Technical Advisor (1966-69); Assoc Technician, ICTA (1970-present). Title: Coordinator, Weed Control Program. Address: Edificio Galerias Espana - 50, Nivel Zona 9, GUATEMALA.

CASTILLO, Manolo B. (1938). Cit: Philippines. Lang: Tagalog, English. Acad Degrees: BSA Philippines (1961); MSc South Dakota State (1965); PhD Oklahoma State (1969). Spec: Plant pathology, nematology; mungo, soybeans, peanuts, beans; soil nematodes in multiple cropping systems. Exper: Research Asst (1962-63); Graduate Research Asst (1963-69); Asst Professor, Univ of the Philippines (1969-present). Title: Asst Professor. Address: Dept of Plant Pathology, College of Agric, Univ of Philippines at Los Banos, College, Laguna, PHILIPPINES.

CAVINESS, Charles Ellis (1922). Cit: U.S.A. Lang: English, Spanish. Acad Degrees: BSA Arkansas (1949); MSc Arkansas (1956); PhD Missouri (1963). Spec: Plant breeding, genetics, agronomy; soybeans, cotton, rice, wheat; Exper: Research Asst, Univ of Arkansas (1949-51); Agronomist, Arkansas Agric Mission to Panama (1951-55); Univ of Arkansas: Graduate Asst (1955-56), Instructor (1956-58), Asst Professor (1958-64), Assoc Professor (1964-69), Professor (1969-present); received "Certificate of Meritorious Award for Education and Research" from the American Soybean Association (1969); 60 scientific papers. Title: Professor of Agronomy. Address: Agronomy Dept, Univ of Arkansas, Fayettsville, Arkansas 72701, U.S.A.

CENOZ, Hector M. (1913). Cit: Argentina. Lang: Spanish. Acad Degrees: Ing Agr, La Plata (1940); PhD Nordeste (Agr) (1955). Spec: Agronomy, plant genetics; cassava; genetic improvement, protein quality and quantity. Exper: Research (1943-55); Professor in Plant Science (1955-present). Title: Professor and Head of Dept. Address: Dept of Plant Production, Universidad del Nordeste, Sargento Cabral 2139, Corrientes, ARGENTINA.

CERRATE, Alfonso M. (1925). Cit: Peru. Lang: Spanish, English, Quechua. Acad Degrees: BSc Peru (1950); MSc Iowa (1955); PhD Nebraska (1967). Spec: Agronomy, plant breeding; maize, forage, legumes; maize breeding for yield and endosperm quality. Exper: Teaching Asst, plant physiology and cytology (1952-56); Leader, Highland Maize Research Project (1956-60); Acting Director, Corn Breeding (1960-62); Senior Professor, Plant Genetics and Quantitative Genetics (1966-present). Title: Head of Plant Science Dept. Address: Universidad Nacional Agraria, La Molina, Aptdo 456, Lima, PERU.

CEVALLOS-DAVILA, Adolfo L. (1931). Cit: Ecuador. Lang: Spanish, English. Acad Degrees: Ing Agr Ecuador (1962); MSc Monterrey (1970). Spec: Agronomy, entomology; maize, cacao, bananas, coffee, soybeans; plant resistance, insecticide studies. Exper: Research Asst INIAP (1962-65); cacao and coffee program (1964-66); Chief, Entomology and Weed Control Research (1966-68); Head of Entomology (1968-74); Professor of Entomology at Univ Babahoyp (1972-74). Title: Entomology Research Head. Address: Pichilingue Experiment Station (INIAP), Apartado 24, Quevedo, ECUADOR.

CHAKRABANDHU, M. C. (1909). Cit: Thailand. Lang: Thai, English. Acad Degrees: BSc Philippines (1934); MS Cornell (1941); DSc (Hon) Kasetsart (1969). Spec: Agronomy, plant breeding; rice, cotton, maize; crop research and development. Exper: various research, extension, and administrative positions in Ministry of Agric (1935-51); Vice-Rector, Kasetsart Univ (1951-69); Director-General, Rice Dept, Ministry of Agric (1953-61); Director-General, Dept of Agric (1961-73); Dean, Faculty of Agric

(1968); REctor, Univ (1969-present); Minister of Agric and Cooperatives (1973-present); board member of various national organizations; Board Member of IRRI (1962-65), CIMMYT (1966-71). Title: Rector of Kasetsart Univ; Minister of Agric and Cooperatives. Address: Kasetsart Univ, Paholyothin Roda, Bangkok 9; or Ministry of Agric and Cooperatives, Bangkok, THAILAND.

CHANDHANAMUTTA, Phattakun (1944). Cit: Thailand. Lang: Thai, English. Acad Degrees: BSc Kasetsart (1967); MSc Iowa State (1971); PhD Iowa State (1973). Spec: Plant breeding; wheat, upland rice; crop breeding. Exper: Wheat and upland rice breeding program; teach genetics. Title: Breeding Agriculturist. Address: Rice Division, Bangkhen, Bangkok 9, THAILAND.

CHANDRA, Satish (1939). Cit: India. Lang: Hindi, Punjabi, English. Acad Degrees: BSc Central College (1958); MSc Government College (1960); PhD Indian Agric Research Institute (1965). Spec: Plant breeding, genetics, agronomy; chickpeas, mungbeans, urdbeans, cajanus, cowpeas; yield, quality, drought and disease resistance. Exper: Research Asst (1961); Asst Botanist, sorghum (1965-67); Economic Botanist, gram and pulses (1967-present); Post-doctoral Fellow in U.S.A. (1971-72). Title: Economic Botanist (gram and pulses). Address: Haryana Agric Univ, Hissar 125004, INDIA.

CHANDRAPANYA, Damkheong (1935). Cit: Thailand. Lang: Thai, English. Acad Degrees: BSc Kasetsart (1958); MSc Oklahoma State (1965); PhD Louisiana State (1972). Spec: Agronomy, plant breeding; rice, soybeans; cultivation practices, seed storage, plant breeding methods. Exper: Rice Research Technician (1958-64); Rice Technician, in charge of breeding material and fertilizer testing (1965-69); experimentation on seed storage technology (1972-present); test and evaluation of rice culture practices applicable to farmers' conditions. Title: Head, Rice Culture Improvement and Seed Storage Branch. Address: Rice Culture Improvement and Seed Storage Branch, Rice Division, Dept of Agric, Bangkok 9, THAILAND.

CHANG, Kwon Yawl (1929). Cit: Korea. Lang: Korean, English. Acad Degrees: BSc Seoul (1952); MSc Korea (1963); PhD Korea (1965). Spec: Plant breeding; soybeans, adzuki-beans, kidney beans, rice; quantitative characters; Exper: Instructor, Agric College (1955-58); Asst Professor (1959); Assoc Professor (1962); Professor (1965-present); extensive travel in Europe and Asia. Title: Professor of Plant Breeding and Genetics. Address: Dept of Agronomy, Gyeongsang National Univ, Jinju 620, Gyeongnam, KOREA.

CHANG, Shin Chi (1930). Cit: Republic of China. Lang: Chinese, Taiwanese, English, Japanese. Acad Degree: Chiayi Senior Agric School (1950). Spec: Plant breeding; maize; downy mildew resistance. Exper: Technical mission to Vietnam (1963, 1973, 1974); Inter-Asian Maize Workshop (1965, 1966, 1968, 1969, 1971, 1972); International Maize Workshop, Mexico (1971). Title: Senior Specialist and Director. Address: Corn Research Center, Potzu, Chiayi, Taiwan, REPUBLIC OF CHINA.

CHANG, Wan Lai (1931). Cit: Republic of China. Lang: Chinese, English, Japanese. Acad Degrees: BSc Taiwan Provincial College of Agric (1954); MSc Hawaii (1963). Spec: Agronomy; rice; breeding for disease and insect resistance, chemical control of weeds. Exper: Rice Research Officer in charge at Agric and Forestry Dept, Taiwan Provincial Government (1955-61); Agronomist and Head, Dept of Agronomy, Chiayi Agric Experiment Station (1963-present). Title: Agronomist and Head, Dept of Agronomy. Address: Chiayi Agric Experiment Station, Chiayi, Taiwan, REPUBLIC OF CHINA.

CHANG-NAVARRO, Lorenzo (1932). Cit: Peru. Lang: Spanish, English. Acad Degrees: BSc Escuela Nacional de Agric (1955); MSc California (1967). Spec: Agronomy, soils, fertilizers, irrigation; cotton, maize, potatoes, groundnuts, soybeans, beans, pasture, fruits; optimum use of water and fertilizers. Exper: Research in crop fertilization and irrigation (1958-present); Assoc Professor of Soils and Irrigation (1967-present); Head of Soils and Fertilizers, National Center of Farming Research (1972-73). Title: Head of Water and Land Resources Dept. Address: Universidad Nacional Agraria, Departamento de Recursos de Agua y Tierra, Apartado 456, Lima, PERU.

CHAUDHARY, Ghulam Qadir (1918). Cit: Pakistan. Lang: Punjabi, Urdu, English. Acad Degrees: BSc Punjab (1943); MSc Punjab (1950); MSc Oregon State (1961). Spec: Entomology research and extension; all major crops and fruit trees. Exper: Teaching and Research Asst (1943-51); Asst Entomologist (1952-58); Asst Plant Protection Officer (1959-61); Plant Protection Officer (1962-71); Joint Director, Plant Protection Institute (1971); Director (1972-present). Title: Director. Address: Plant Protection Institute, Lyallpur, PAKISTAN.

CHAUDHRI, Nur Mohammad (1934). Cit: Pakistan. Lang: Punjabi, Urdu, English. Acad Degrees: BSc Punjabi Univ, Lahore (1950); MSc W.R.A.U. Lyallpur (1963);

MSc Washington State (1971). Spec: Plant breeding and agronomy; wheat, barley, rice, maize, pulses; evolution of high yielding varieties of wheat and improvement in agronomic practices to increase production. Exper: Agric Asst, teaching and research (1950-54); Research Asst, wheat, maize, rice, millets (1954-65); Asst Botanist, rice (1965); Asst Botanist, cereals (1965-present); worked 8 months, CIMMYT, Mexico on wheat improvement (1962). Title: Asst Botanist (Cereals). Address: Cereal Section, Punjab Agric Research Institute, Lyallpur, Punjab, PAKISTAN.

CHAUDHRY, Abdul Majid (1931). Cit: Pakistan. Lang: Punjabi, Urdu, English, French. Acad Degrees: BSc Lyallpur (1955); MSc Lyallpur (1960); PhD Philippines (1969). Spec: Plant breeding, agronomy; rice, wheat; evolution of medium and fine varieties of rice, fertilizer use. Exper: Research Asst, wheat (1956-65); Asst Botanist, physiology (1969-71); Assoc Rice Botanist (1969-71); Rice Botanist (1972-present). Title: Rice Botanist. Address: Rice Research Institute, Kala Shah Kaku, Lahore, Punjab, PAKISTAN.

CHAUDHRY, Abdur Rehman (1932). Cit: Pakistan. Lang: Punjabi, Urdu, English. Acad Degrees: BSc Punjab (1955); MSc Agric Punjab (1957); PhD Manitoba (1967). Spec: Plant breeding, genetics and biometry; maize, sorghum, millets; development and population improvement of synthetic varieties in maize and millets. Exper: Research Asst (1958-60); Asst Botanist, Maize (1961-68); Millet Botanist (1969); Maize Botanist and Project Director, Maize-Millet (1969-present). Title: Project Director Maize-Millet. Address: Maize and Millets Research Institute, Yusuafwala, (Punjab), PAKISTAN.

CHAUDHRY, Abdus Sattar (1943). Cit: Pakistan. Lang: Punjabi, urdu, English. Acad Degrees: BSc West Pakistan (1963); MSc West Pakistan (1972). Spec: Plant breeding, genetics; wheat, barley, millets, pulses; evolution of high yielding, disease-resistant wheat varieties. Exper: Research Asst Cereals (1964-present); worked on wheat breeding and production, CIMMYT, Mexico (1968-69). Title: Research Asst. Address: Cereal Section, Punjabi Agric Research Institute, Lyallpur, PAKISTAN.

CHAUDHRY, Altaf H. (1935). Cit: Pakistan. Lang: Punjabi, Urdu, Sindhi, English. Acad Degrees: BSc Tandojam (1956); MSc Sind (1962). Spec: Plant breeding; rape, mustard, soybeans, safflower, sunflowers, sesame, castorbeans, groundnuts; improvement of yield and oil. Exper: Research Asst (1956-63); Asst Botanist (1964-68); Oilseeds Botanist (1968-present); international seminars in Thailand and Sweden. Title: Oilseeds Botanist. Address: Agric Research Institute, Tandojam, Sind, PAKISTAN.

CHAUDHRY, Manzoor Ullah (1932). Cit: Pakistan. Lang: Punjabi, Urdu, English, Persian, Arabic. Acad Degrees: BSc Punjab (1953); MSc Punjab (1961); MSc Beirut (1966). Spec: Food technology, nutrition, biochemistry; food crops; food processing, protein quality and quantity. Exper: Research Asst, chemical (1953-63); Asst Food Technologist (1963-66); Asst Biochemist in food technology (1966-present); Research Officer, Food Technology Section; several conferences in Middle East. Title: Asst Agric Chemist (Bio). Address: Punjab Agric Research Institute, Lyallpur, PAKISTAN.

CHAUDHRY, Mohammad Noorullah (1933). Cit: Pakistan. Lang: Punjabi, Urdu, English. Acad Degrees: BSc Lyallpur (1954); MSc Lyallpur (1956); PhD Manitoba (1968). Spec: Plant breeding and agronomy; wheat, maize, cereals; wheat breeding and agronomy. Exper: Research Asst, oilseeds and wheat (1957-69); Asst Botanist, maize and cereals (1969-71); Wheat Botanist (1971-present). Title: Wheat Botanist, Rainfed. Address: Wheat Research Station, Murree Road, Rawalpindi, PAKISTAN.

CHAUDHRY, Muhammad Akhtar (1929). Cit: Pakistan. Lang: Punjabi, Urdu, English. Acad Degrees: BSc Punjab, Lyallpur (1949); MSc Punjab; PhD Queen's Univ, Belfast (1965). Spec: Plant pathology; wheat, cotton, gram, sugarcane, linseed, vegetables; soil fungi, biological control of soil-borne plant pathogens. Exper: Agric Asst, Extension (1949-50); Research Asst (1950-57); Asst Plant Pathologist (1959-69); Plant Pathologist (1970-present). Title: Plant Pathologist. Address: Punjab Agric Research Institute, Lyallpur, PAKISTAN.

CHAUHAN, Krishan Pal Singh (1942). Cit: India. Lang: Hindi, English, German. Acad Degrees: BSc Agra (1960); MSc Agra (1962); PhD Indian Agric Research Institute (1968). Spec: Genetics, cytogenetics, plant breeding; triticale, wheat; triticale breeding and cytogenetics. Exper: Research Asst (1962-63); Post-doctoral Research Fellow at Heidelberg (1966-68); Asst Professor of Plant Breeding (1968-73); Assoc Professor/Senior Research Officer, Triticale Breeding (1973-present); International Triticale Symposium, Mexico (1973); teaching cytogenetics. Title: Assoc Professor/Senior Research Officer, Plant Breeding. Address: Dept of Plant Breeding, G. B. Pant Univ of Agric and Technology, Pantnagar (District: Nainital), INDIA.

CHEN, Chia-Chi (1937). Cit: Republic of China. Lang: Chinese, Japanese, English. Acad Degrees: BSc Taiwan (1960), MSc Mississippi State (1970). Spec: Plant breeding; rice, vegetables, field crops; seed technology. Exper : Symposium at USDA (1971). Title: Seed Technologist. Address: Plant Industry Division, Joint Commission on Rural Reconstruction, Taipei,Taiwan, REPUBLIC OF CHINA.

CHENG, Chien-pan (1928). Cit: Republic of China. Lang: Chinese, English. Acad Degrees: BSc Taiwan (1953); PhD V.P.I. (1967). Spec: Plant breeding; maize, sweet potatoes, sorghum, soybeans, peanuts; practice of multiple cropping, genetics of inter-relationship between plant host and parasite. Exper: Rice Research Asst (1954-57); Teaching Asst NTU (1957-60); Acting-in-charge of rice program, JCRR (1961-63); 10 academic symposiums in Southeast Asia and U.S.A. (1966-73); 6 short-term assignments abroad (1968-73). Title: Senior Specialist, Plant Industry Division, JCRR, and Professor of Genetics at National Taiwan Univ. Address: 37 Nanhai Road, Taipei, Taiwan, REPUBLIC OF CHINA.

CHENG, Ching-Huan (1938). Cit: Republic of China. Lang: Chinese, Taiwanese, English. Acad Degrees: BSc Taichung Agricultural College (1960); MSc Philippines (1969). Spec: Entomology; rice, soybean; varietal resistance to insects, integrated control of insects. Exper: Research Asst (1961-63); Junior Entomologist (1963-70); special training at IRRI and study at UPCA (1966-69); Assoc Entomologist (1970 to 1974). Title: Entomologist and Head of the Dept of Plant Protection. Address: Chiayi Agric Experiment Station, Chiayi, Taiwan D-600, REPUBLIC OF CHINA.

CHESNEY, H. Arlington (1941). Cit: Guyana. Lang: English. Acad Degrees: BSc London (1963); MSc Trinidad (1967). Spec: Soil fertility, chemistry; peanuts, soybeans, maize, Vigna peas, tropical grasses. Exper: Research on chemistry of ontisols, latosols, podzols and associated lateritic soils, and crop response to fertilizers on these soils. Title: Deputy Chief Agric Officer. Address: Ministry of National Development and Agric, P.O. Box 1001 Georgetown, GUYANA.

CHIN, Khoon Min (1947). Cit: Malaysia. Lang: Malay, English, Chinese. Acad Degrees: BSc (hons) Reading (1969); MSc Penang (1974). Spec: Plant pathology; rice; resistant varieties, cultural and chemical control methods, paddy straw, mushroom culture. Exper: Research Officer, Rice Research Unit, West Malaysia (1970-71); Plant Pathologist, Rice Unit, Malaysian Agric Research and Development Institute (MARDI) (1971-present); short-term observer, IRRI (1973); conference, IRRI (1973). Title: Research Officer. Address: MARDI Research Station, Bumbong Lima, Seberang Perai, WEST MALAYSIA.

CHIVUKULA, Krishnamoorthy (1921). Cit: India. Lang: Telugu, Hindi, English. Acad Degrees: BSc Nizams College (1939); BSc Coimbatore (1943); PhD California (1949). Spec: Soil science, plant nutrition and chemical thermodynamics; sorghum, pearl millet, upland rice, safflower, sunflowers, grain legumes; dryland crops and varieties adaptation, crop substitution, crop physiology, inter-cropping. Exper: Plant nutrient deficiencies (1943-54); soil conservation (1954-66); dryland agric (1970-present); Director of Research, Andhra Pradesh Agric Univ (1966-70); soil conservation training, USAID (1970). Title: Director, All India Coordinated Research Project for Dryland Agric. Address: College of Agric, "K" Block, Rajendranagar, Hyderabad-500030, Andhra Pradesh, INDIA.

CHO, Duck Hiyon (1928). Cit: Korea. Lang: Korean, English. Acad Degrees: BSc Seoul (1946); MSc California (1963); PhD California (1966). Spec: Food science, agric chemistry; cereals, rice; storage of cereals. Exper: Professor of Food Technology, Seoul National Univ, College of Agric. Title: Professor of Food Technology. Address: College of Agric, Seoul National Univ, Suwon, SOUTH KOREA.

CHOHAN, Jaswant Singh (1922). Cit: India. Lang: Punjabi, Urdu, English, Hindi. Acad Degrees: BSc Lahore (1943); MSc East Punjab (1953); PhD Ohio State (1963). Spec: Plant pathology, virology; oilseeds, mycotoxins, groundnuts, vegetables, fruit; aflatoxins, induced resistance, seed pathology. Exper: Research Asst, wheat breeding (1943-47); Research Asst, plant pathology (1947-57); Asst Plant Pathologist, groundnuts (1957-63); Plant Pathologist (1963-67); Assoc Professor and Assoc Head of Plant Pathology (1966-69); Professor and Head of Plant Pathology, Ludhiana (1969-present). Title: Professor and Head, Dept of Plant Pathology. Address: Punjab Agric Univ, College of Agric, Ludhiana-4, Punjab, INDIA.

CHOI, Hyun Ok (1917). Cit: South Korea. Lang: Korean, English, Japanese, German. Acad Degrees: BSc Seoul (1941); PhD Seoul (1967). Spec: Plant breeding; rice, barley, wheat, corn, soybeans, sweet potatoes, rape and other field crops; varietal improvement and research on cultural practices in field crops. Exper: Agric Specialist (1941-47); Junior Agronomist (1947-52); Senior Agronomist (1953-57); Head of Paddy Crops Division (1957-65); Director, Yungnam Crops

Experimental Station (1965-67); Director Crop Experimental Station (1967-present). Title: Director. Address: Crop Experiment Station, Office of Rural Development, Suwon, KOREA.

CHOI, Seung Yoon (1931). Cit: South Korea. Lang: Korean, English, Japanese. Acad Degrees: BSc Seoul (1957); PhD Seoul (1970). Spec: Applied entomology, chemical control; rice, barley, wheat; varietal resistance of rice to insect pests. Exper: Research Asst, Korea (1957-59); Research Asst in Entomology, Minnesota (1959-61); Instructor of Entomology (1961-65); Asst Professor (1965-72); Assoc Professor (1972-present). Title: ssoc Professor of Entomology, Department Head. Address: Dept of Agric Biology, College of Agric, Seoul National Univ, Suwon, KOREA 170.

CHOUDHURY, Mortuza Ahmed (1935). Cit: Bangladesh. Lang: Bangla, English, Urdu. Acad Degrees: BSc Dacca (1954); MSc Dacca (1956); PhD Texas A&M (1968); Spec: Plant breeding; rice, wheat, maize, barley, and oats; rice breeding and rice genetics; Exper: Rice breeding and rice genetics for 17 yrs; MSc Thesis Advisor and Examiner of MSc examination of three universities; management of experiment sub-stations (1960-64); special training on rice field experimentation at IRRI, Philippines (1968). Title: Principal Scientific Officer, B.R.R.I.; Address: Bangladesh Rice Research Institute, Joydebpur, Dacca, BANGLADESH.

CHOW, Kuan-Hon (1938). Cit: Republic of China. Lang: Chinese (Mandarin), English. Acad Degrees: BSc Taiwan (1963); MSc Hawaii (1968); PhD Cornell (1971). Spec: Plant breeding, agronomy, biometry; tropical pasture legumes, alfalfa, rice, wheat; plant genetics, yield and protein content. Exper: Research Asst (1965-71); Lecturer, plant ecology (1971-present); three conferences in U.S.A. and Asia. Title: Lecturer, Botany Dept. Address: Dept of Botany, Univ of Singapore, SINGAPORE.

CHOWDHURY, Sohan Lal (1918). Cit: India. Lang: Hindi, Urdu, English, French. Acad Degrees : BSc Lyallpur (1941); MA Delhi (1951); PhD IARI (1965). Spec: Agronomy; grain legumes, millets, rice, wheat, barley; research management on drylands. Exper: Research Asst (1947-59); Asst Agronomist (1960-63); Asst Professor Farm Management (1964-66) Agronomist (1967-71); Chief Scientist, dryland agric (1971); Project Coordinator, All India Coordinated Research Project for Dryland Agric. Address: "K" Block, College of Agric, Rajendranagar, Hyderabad 500030, INDIA.

CHRISTIANSEN, Jorge A. (1934). Cit: Peru. Lang: Spanish, English. Acad Degrees: Ing Agron, Lima (1957); MSc Cornell (1969); PhD Cornell (1971). Spec: Plant breeding; potatoes, cassava, sweet potatoes. Exper: Potato investigations (1959-72); teaching (1964-69); training at CIMMYT (1961-62). Title: National Potato Coordinator. Address: Ministry of Agric, Edif Min de Trabajo, Avda Salaverry, Lima, PERU.

CHUNG, Hoo Sup (1930). Cit: Korea. Lang: Korean, English, Japanese, German. Acad Degrees: BSc Seoul (1954); MSc Minnesota (1967). Spec: Plant pathology, mycology; rice, barley, wheat, soybeans; physiologic specialization of fungal pathogens, disease resistance, disease control. Exper: Instructor and Professor (1957-present); Dept Head (1969-71); Senior Research (1974-present); Research Advisor, Office of Rural Development, Plant Pathology (1967-70); Research Advisor, Central Monopoly Research Institute (1967-present); Visiting Professor, IRRI (1972); Vice-President and President, Korean Society of Plant Protection (1969-71 and 1973-present). Title: Professor, College of Agric. Address: Seoul National University, Suwon 170, KOREA.

CONCEICAO, Antonio Jose da (1922). Cit: Brazil. Lang: Portuguese. Acad Degree: BSc Bahia (1948). Spec: Agronomy; cassava; plant breeding, variety tests. Exper: Research (1950-present); teaching (1953-present). Title: Professor of Plant Pathology. Address: Escola de Agronomia, Universidad Federal da Bahia, Cruz das Almas, Bahia, BRAZIL.

CONTADO, Tito E. (1936). Cit: Philippines. Lang: Filipino, Visayan, English, Spanish. Acad Degrees: BSc Visayas Agricultural College (1960); MSc Philippines (1964); PhD Cornell (1969). Spec: Extension and adult education, rural sociology, agric education; rice and multiple cropping; institutional approaches to the introduction and modernization of rice farming and cropping systems. Exper: Project Leader UPLB/SEARCA Social Laboratory (1970-present); Project Leader Experimental Barrio Development School (1970-present); Principal Investigator, Multiple Cropping Extension Pilot Project (1972-present); Research Investigator, Changes in Rice Farming in Selected Areas in Asia (1971-73); Director of Extension Education, Univ of Philippines (1971-73); Asst Chancellor for Extension (1973-present); 8 conferences in Asia, U.S.A., Europe. Title: Asst Chancellor for Extension. Address: Univ Extension Center, Univ of the Philippines at Los Banos, Laguna, PHILIPPINES E-109.

CONTRERAS, Andres (1943). Cit: Chile. Lang: Spanish, English. Acad Degree: BSc, Univ Austral, Chile (1969). Spec: Agronomy, industrial crops; potatoes, sugar beets, rape, flax; physiology and storage of potatoes, maintenance of potato germplasm. Exper:

Research Asst, potatoes (1969); Provincial phytosanitary inspection and seed certification (1970-71); Professor of Industrial Crops and Potato Researcher (1971-74). Title: Professor and Coordinator of Potato Program. Address: Instituto de Produccion Vegetal, Universidad Austral de Chile, Casilla 567, Valdivia, CHILE.

CONTRERAS, Pompeyo (1919). Cit: Peru. Lang: Spanish. Acad Degree: Ing Agron La Molina (1943). Spec: Agronomy; rice, soybeans, sunflowers, other grain legumes. Exper: Agronomy Dept, La Molina; research on rice, and Chief of the Experiment Station, Lambayeque; Leader, National Program for Rice Research, Peru (1960-70); Sub-Director for Agric Research, Zone II (1969-71); Director, Regional Center for Agric Research in the North (1972-present). Title: Director. Address: Centro Regional de Investigacion Agraria del Norte, Apartado 116, Chiclayo, PERU.

CORREIA, Epaminondas Barros (1923). Cit: Brazil. Lang: Portuguese. Acad Degree: BSc Federal Rural Univ of Pernambuco (1948). Spec: Agronomy; soybeans, castor beans, peanuts, french beans; varieties of these crops and fertilizer use. Exper: Chief of several experimental stations working on animal husbandry, vegetable crops, soil conservation and, later, active in rural electrification; since 1973, Chief of the Section of Oil Crops, Institute of Agronomic Research, Office of Agric, Pernambuco. Title: Chief, Section of Oil Crops. Address: Setor de Oleaginosas, Instituto de Pesquisas Agronomicas (IPA), Avenida San Martin No. 1371, Bongi, Recife, Pernambuco, BRAZIL.

CORTAZA, Carlos F. (1931). Cit: Ecuador. Lang: Spanish, English. Acad Degrees: Ing Agr Guayaquil (1961); MC Chapingo (1970). Spec: Genetics; maize, soybeans, cowpeas, mungbeans, phaseoulus beans; breeding, protein quantity and quality. Exper: Head of corn and bean research, Pichilingue Station (1961-66); Head of corn program (1970-present); Professor of Genetics, Guayaquil (1970-present). Title: Research Agrop I, INIAP. Address: Pichilingue Experiment Station, Aptdo 24, Quevedo, ECUADOR.

COSTA, Alvaro Santos (1912). Cit: Brazil. Lang: Portuguese, English, German, Spanish. Acad Degrees: BA E. S. Luiz de Queiroz, Piracicaba (1932); Doctor in Agronomy Sao Paulo (1955). Spec: Plant virology; beans, soybeans, cotton, cassava, citrus, maize, sorghum, tomatoes, peppers; effect of virus diseases on mineral content of plants, vectors, epidemiology. Exper: Research Asst I.G. Farbenindustrie, A. G., Campinas (1933); Research Asst Genetics Dept, Instituto Agronomico, Campinas (1936-54); Head of Virus Dept, Instituto Agronomico Campinas (1954-74). Title: Head of Virus Dept. Address: Secao de Virologia, Instituto Agronomico, Caixa Postal 28, 13.100 Campinas, SP, BRAZIL.

COSTA, Joaquim Geraldo Caprio da (1938). Cit: Brazil. Lang: Portuguese, English. Acad Degrees: BSc Escola de Agronomia-UFPEL (1962); MSc UFRGS (1974). Spec: Agronomy, genetics; beans; disease resistance, protein quality. Exper: Maize breeding (1962-63); bean breeding, EMBRAPA (1964-present); training course in bean genetics and diseases, Vicosa (1964); course in beans and grain legumes at IICA (1972); 15 papers published. Title: Research Specialist, Empresa Brasileina de Pesquisa Agropecuaria. Address: IPEAS-EMBRAPA, Caixa Postal "E", Pelotas, 96 100 - RS, BRAZIL.

CRAIG, Jeweus (1925). Cit: U.S.A. Lang: English. Acad Degrees: BSc Illinois (1949); MSc Illinois (1956); PhD Illinois (1960). Spec: Plant pathology; maize, sorghum; genetics of disease resistance. Exper: Plant pathology and maize breeding, Nigeria (1960-72). Title: Research Plant Pathologist. Address: Plant Sciences Dept, USDA-ARS, Texas A&M Univ, College Station, Texas, 77843, U.S.A.

CRISPIN MEDINA, Alfonso (1926). Cit: Mexico. Lang: Spanish, English. Acad Degrees: Agric (1953); MS Idaho (1955); PhD California (1960). Spec: Phytopathology, agronomy; grain legumes; breeding, protein content, seed production. Exper: Research Aide (1950-53); in charge bean and soybean improvement program (1954-60); Head of Dept of Edible Legumes (1961-present); travels in Western Hemisphere. Title: Head, Dept of Edible Legumes. Address: Instituto Nacional de Investigaciones Agricolas, Apartados 6-882 y 6-883, Mexico 6, D.F. MEXICO.

CUBILLOS, Alberto G. (1933). Cit: Chile. Lang: Spanish, German, English. Acad Degrees: Ing Agr, Chile (1957); PhD Cornell (1974). Spec: Plant breeding, biometry; potatoes; high yield, virus and disease resistance. Exper: Potato research (1959-64); Leader, potato research, experiment station (1964-74); Leader, National Potato Program, INIA (1974-present); Univ Professor (1964-70); 9 potato research conferences in Latin America, U.S.A. and Canada. Title: Leader, National Potato Program. Address: INIA, Estacion Experimental Carillanca, Casilla 58-D, Temuco, CHILE.

CUMPA, Daniel Santiago (1943). Cit: Peru. Lang: Spanish, English, French. Acad Degrees: BSc Univ del Norte (Peru) (1966);

MSc UN-ICA Colombia (1971). Spec: Agronomy, plant breeding; rice, wheat, soybeans; development of varieties resistant to blast and Hoja Blanca (white leaf). Exper: Plant Breeder in National Rice Program (1967-74); Chief of Rice Research at UNPRG (Universidad Nacional Pedro Ruiz Gallo) (1974); rice training at CIAT (1970). Title: Asst Research Director. Address: Universidad Nacional Pedro Ruiz Gallo, Apartado 48, Lambayeque, PERU.

CUNHA, Mario Augusto Pinto da (1941). Cit: Brazil. Lang: Portuguese, English. Acad Degrees: BSc Bahia (1965); MSc Arizona (1969). Spec: Agronomy, plant breeding; maize, sorghum; breeding, cultural practices. Exper: Teaching and research on cereals and other grains (1970-present); undertaking PhD studies at present. Title: PhD student. Address: Dept of Genetics, Escola Superior de Agricultura Luiz de Queiroz, Piracicaba, Sao Paulo, BRAZIL.

CUTTER, Edward Christopher (1942). Cit: U.K. Lang: English, French. Acad Degrees: BSc Bristol (1966); MSc Univ of London (1967). Spec: Plant pathology; groundnuts, beans; yield loss in relation to plant diseases. Exper: 7 yrs research. Title: Plant Pathologist. Address: Malkerns Research Station, P.O. Box 4, Malkerns, SWAZILAND.

DAFALLA, Dafalla Ahmed (1937). Cit: Sudan. Lang: Arabic, English. Acad Degrees: BSc Khartoun (1960); MSc Aberdeen (1965). Spec: Agronomy; wheat, barley; screening studies on wheat. Exper: Experimental Officer (1960-62); Agronomist, wheat and beans (1965-67); Senior Agronomist, wheat (1968); 8 months wheat training at CIMMYT (1968); several international seminars. Title: Head of Station and Senior Wheat Agronomist. Address: Khashm El Girba Research Station, Khashm El Girba, SUDAN.

DANESH, Dariush (1940). Cit: Iran. Lang: Persian, English. Acad Degrees: BSc Tehran Univ (196[illegible]); MSc California (1971); PhD California (1974). Spec: Plant pathology, virology; soybeans, sugar beets, pulse crops (edible legumes); studying virus disease of different crops, develop control methods for virus diseases. Exper: Research Plant Pathologist in Regional Pulse Improvement Project, USDA/ARS Tehran (1965-69); Research Asst, Dept of Plant Pathology, Univ of California (1969-73). Title: Asst Professor. Address: Plant Pathology, Karaj College of Agric, Karaj P. O. Box 247, IRAN.

DART, Peter John (1938). Cit: U.K. Lang: English, French. Acad Degrees: BSc Sydney (1959); PhD Sydney (1964). Spec: Plant physiology, soil microbiology, electron microscopy; grain legumes, soybeans, peanuts; nodulation and nitrogen fixation, nitrogen distribution in plants. Exper: Research fellowships, Universities of Sydney and NSW (1959-64); CSIRO, Cabot Foundation, Fulbright Fellowships, Denmark and U.S.A. (1964-65); papers given at 9 conferences in U.K., Italy, Holland, U.S.A., Austria, Nigeria; Consultant to FAO-IAEA, fertilizer utilization by legume crops; U.K. ODA project on tropical nitrogen fixation in association with IITA, Nigeria and others. Title: Principal Scientific Officer. Address: Soil Microbiology Dept, Rothamstad Experimental Station, Harpenden, Herts. AL5 2JG, ENGLAND.

DASANANDA, Sala (1916). Cit: Thailand. Lang: Thai, English. Acad Degrees: BSc Cornell (1939); PhD Cornell (1943); DSc (Hon) Chulalongkorn (1971). Spec: Plant breeding; rice; yield and quality. Exper: Former Director-General Rice Dept, Thailand; former Member, Board of Trustees, IRRI; Member, National Research Council, Thailand; Member and Adviser, Science Society of Thailand. Title: Administrative Officer. Address: FAO Regional Office for Asia and the Far East, Bangkok, THAILAND.

DAVIDE, Romulo Gelbolingo (1934). Cit: Philippines. Lang: Cebuano, Tagalog, English. Acad Degrees: BSA Philippines (1957); MSc Oklahoma (1962); PhD North Carolina (1965); Spec: Nematology, plant pathology; vegetables, potatoes, fruit crops; host-parasite relationships and nematode control. Exper: Project Leader in crop protection research projects and extension program (1970-74); Member, Vegetable Research Committee (1972-74); Chairman, Research Committee of the Dept of Plant Pathology (1967-72); attended four AIBS conferences. Title: Asst Professor of Plant Pathology. Address: Dept of Plant Pathology, College of Agric, Univ of the Philippines at Los Banos, College, Leguna, PHILIPPINES.

DAVIES, John Cecil (1934). Cit: U.K. Lang: English, Welsh, French, Swahili. Acad Degrees: BSc Wales (1954); PhD Makerere (1971). Spec: Entomology; sorghum, pearl millet, groundnuts, pigeon peas, chick peas; breeding for plant resistance, insecticides, biology of insect pests. Exper: Research on sorghum, groundnuts, cotton and coffee pests, Uganda (1956-72); Agric Research Station Director, Uganda (1966-72); locust and crop pest control, East Africa and Saudi Arabia; special training in tropical and stored products entomology. Title: Principal Scientific Officer. Address: International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), 1-11 56 Begumpet, Hyderabad 500016, A.P., INDIA.

DAVIS, Marvin D. (1933). Cit: U.S.A. Lang: English, Portuguese. Acad Degree: BSc California (1973). Spec: Agronomy, plant breeding and production; rice; genetic components associated with varietal improvement. Exper: Univ of California Agric Extension Service, cereal grains, weed control, forestry and turf management (1959-67); Research Leader, USDA/ARS/PASA Team in Vietnam (1967-70); Assoc Rice Geneticist, USDA/ARS at Univ of Calif (1970-73); travel throughout Southeast Asia including 3 rice conferences at IRRI and Maize Breeding Conference in India. Title: Chief, National Rice Research Project. Address: Instituto de Pesquisa e Experimentacao Agropecuaria do Sul (IPEAS), Cx P. "E", 96.100 Pelotas - RS, BRAZIL.

DE, Rajat (1925). Cit: India. Lang: Hindi, Bengali, English. Acad Degrees: BSc Lucknow (1946); MSc Varanasi (1948); PhD Banaras (1952). Spec: Plant physiology, agronomy; wheat, rice, maize, oilseeds, grain legumes, vegetables; dry farming research, irrigated multiple cropping, foliar application of fertilizers. Exper: Asst Sugarcane Chemist (1953-57); Crop Physiologist, potatoes (1957-62); Agronomist (1962-67); Professor of Agronomy (1967-71); Head, Agronomy Division, I.A.R.I. (1971 - present); international conference (Reading, 1968), FAO/SIDA Conference for Plant Scientists (1973); travelled widely in

Southeast Asia, Middle East, Europe, U.S.A. Title: Head, Agronomy Division. Address: Indian Agric Research Institute (IARI), New Delhi 110012, INDIA.

DEGRAS, Lucien Modeste (1927). Cit: France. Lang: French, English, Spanish. Acad Degrees: License, Montpelier (1948); Tropical Agriculture, Ecole Superieure d'Application d'Agriculture Tropicale (1949); Plant Genetics, Office de la Recherche Scientifique Outre Mer (1950). Spec: Plant genetics; yams, sweet potatoes, grain legumes, maize; physiological parameters in heredity, vegetative and reproductive balance in the tropical environment. Exper: Rice Geneticist for French West Africa (1951-55); food crops, phytotechnique, Ivory Coast (1956-58); Oats Geneticist, INRA (1959-66); Director, Plant Breeding (1964-present). Title: Director, Plant Breeding Station. Address: Station d'Amelioration des Plantes, Centre de Recherches Agronomiques des Antilles et de la Guyane (C.R.A.A.G.) Institut National de la Recherche Agronomique (I.N.R.A.) France, Petit Bourg, GUADELOUPE, FRENCH WEST INDIES.

DEL CARPIO BURGA, Romulo O. (1919). Cit: Peru. Lang: Spanish. Acad Degree: Ing Agron. Spec: Plant breeding; sweet potatoes, beans, potatoes, cassava, groundnuts, cotton; agronomic research. Exper: Agronomy Asst. in charge of cotton seed propagation plots; Head, Dept of Agronomy and Genetics. Title: Director and Head, Agronomy and Genetics Dept. Address: Estacion Experimental Agricola de Canete, Apartado 37, Canete, PERU.

DELGADO, Julio C. (1935). Cit: Ecuador. Lang: Spanish, English. Acad Degrees: BSc Guayaquil (1960); MSc I.I.A.S., Costa Rica (1964). Spec: Plant pathology; cacao, oilseed crops, rice, cotton, and other tropical crops; control of plant diseases. Exper: Dept of Plant Pathology "Pichilingue" Experiment Station (1959-60); Graduate Asst (1960-62); Plant Pathologist (1964-70); Chief, Plant Pathology Dept (1970-present); Professor, Faculty of Agronomy; visits to several Latin American countries. Title: Chief, Dept of Plant Pathology, "Boliche" Experiment Station (INIAP). Address: P.O. Box 7069, Guayaquil, ECUADOR.

DELGADO, Sanchez Santiago (1932). Cit: Mexico. Lang: Spanish, English. Acad Degrees: BSc Univ of Coahuila, Mexico (1956); MSc California (1960); PhD California (1966). Spec: Agronomy, plant pathology; potatoes, tomatoes, peppers; virus diseases and seed production. Exper: Research Asst, potatoes (1956-60); Asst Head, Potato Program (1961-63); Head, Potato Program (1967-72); Head, Vegetable Crops Pathology (1972-74); research and teaching in the national agric school, Chapingo, Mexico. Title: Head, Vegetable Crops Pathology. Address: Instituto Nacional De Investigaciones Agricolas (I.N.I.A.), Apartado Postal 6-882, Mexico 6, D.F., MEXICO.

DELGADO FERALTA, Manuel Jesus (1939). Cit: Peru. Lang: Spanish, English. Acad Degree: BSc La Molina National Univ (1961). Spec: Agronomy, entomology; potatoes, cotton, grapes, citrus; integrated control of potato pests, aphid vectors of virus on potato and other crops. Exper: Research Asst in charge of potato investigations (1965-74); Professor of Entomology, San Cristobal de Huamanga Univ (1968); participated in many international conferences on potato pests. Title: Research Entomologist. Address: Departamento de Entomologia - Estacion Experimental Agraria de La Molina, Apartado 2791 Lima 1, PERU.

DELHEY, Rolf R. (1938). Cit: Germany. Lang: German, Spanish, English. Acad Degrees: Dr Cologne (1969). Spec: Botany, genetics, biochemistry; potatoes, sunflowers; virus diseases, resistance breeding. Exper: Expert, potato viruses, Argentine-German Potato Improvement Project (1969-74); Teacher, Faculty of Agric, Balcarce. Title: Expert. Address: INTA, Estacion Experimental Regional Agropecuaria, Balcarce, ARGENTINA.

DEMIRLICAKMAK, Ahmet (1926). Cit: Turkey. Lang: Turkish, English. Acad Degrees: BSc Univ of Ankara (1948); Dr Agric Ankara (1956); PhD Alberta (1962). Spec: Breeding agronomy; wheat, barley; disease and cold resistance, tilaage practices, fertilizer use. Exper: Research Asst at Research Institute Ankara (1948-53); Professor, Faculty of Agric Univ of Ankara (1953-59); Chief Research Officer, wheat, Regional Research Institute (1962-69); Director, Wheat Research and Training Center, Ankara (1969-72); Director, Regional Research Institute, Ankara (1972-present). Title: Director. Address: Regional Research Institute, P.K. 226 Ankara, TURKEY.

DEMIROZ, Sadettin Sadi (1929). Cit: Turkey. Lang: Turkish, English, Spanish. Acad Degrees: BSc Ankara (1951); MSc Ankara (1961). Spec: Field crops research; wheat maize, potatoes; spring wheat breeding. Exper: Research Asst, plant protection (1951); Research Officer in charge of wheat (1952-58); Director Agric Research Institute, Sakarya (1958-present); many interntional seminars. Title: Director. Address: Agric Research Institute, P.O. Box 25, Sakarya, TURKEY.

DEMOL, Julien G. D. (1926). Cit: Belgium. Lang: French, Dutch, English. Acad Degrees: BSc Gembloux (1947); PhD Gembloux (1965). Spec: Agronomy, genetics, ecology; cotton, peanuts, maize; breeding and ecology. Exper: Research Officer, in charge of cotton and food crops breeding, INEAC, Bambesa (1952-67); in charge of research, genetics and ecology, Dept of Tropical Agric, Faculte des Sciences Agronomiques de l'Etat Gembloux; Senior Expert, cotton and food crops research, INEAS, Zaire (1970-71). Title: Chef de Traveux. Address: Chaire de Phytotechnie des regions chaudes, Faculte des Sciences agronomiques de l'Etat a Gembloux, 5800 Gembloux, BELGIUM.

DENNIS, Robert Edward (1920). Cit: U.S.A. Lang: English. Acad Degrees: BSc Michigan State (1942); MSc Michigan State (1953); PhD Michigan State (1958). Spec: Crop production; wheat, sorghum, millet, alfalfa, oilseeds, barley, corn, specialty and seed crops; food crops in irrigated deserts. Exper: Professor, Michigan State (1946-59); Agronomist and Major Professor, Arizona (1959-67); salted water use study at the Oak Ridge Laboratory in Tennessee (1967-68); forage and other crop improvement in Northwest Mexico (1968-69); alfalfa adaptation in West Pakistan (1970); extension reorganization in Saudi Arabia (1973); USAID Agric Program in the Sudan (1973-74). Title: Extension Agronomist and Professor. Address: Dept of Agronomy and Plant Genetics, Univ of Arizona, Tucson, Arizona 85721, U.S.A.

DESAI, Nanubhai D. (1927). Cit: India. Lang: Gujarati, Hindi, English. Acad Degrees: BSc Bombay (1949); MSc Wisconsin (1966); PhD Wiscousin (1968). Spec: Agronomy, plant breeding; rice, cotton, wheat, sorghum, sugarcane; crop improvement and breeding. Exper: Research Asst, cotton (1949-54); rice, sorghum, and wheat (1954-59); Research Officer, sugarcane (1959-60); Asst Crops Specialist, rice and wheat (1960-64); Research Botanist and Cytogeneticist (1968-70); Professor of Botany (1970-73); Rice Specialist (1973-present). Title: Rice Specialist. Address: Main Rice Research Station, Nawagam, Taluka Matar, Dist Kheda, Gujarat State, INDIA.

DESSOUKI, Said M. (1920). Cit: Egypt. Lang: Arabic, English, French. Acad Degrees: BSc Cairo (1943); MSc Minnesota (1949); PhD Cairo (1963). Spec: Plant breeding, agronomy; wheat, barley, maize; disease resistance, production agronomy. Exper: Research Asst, wheat (1944-50); Senior Officer in charge of wheat and barley research (1951-62); Director, cereal improvement research (1963-70); Deputy Director, Field Crops Research Institute (1970-present); extensive travel North America, Europe, Near East, South Asia. Title: Deputy Director. Address: Field Crops Research Institute, Agric Research Center, Giza (Orman), EGYPT.

DEVADATH, Sannapunoolu (1941). Cit: India. Lang: Telugu, Hindi, Oriya, English. Acad Degrees: BSc Sri Venkateswara (1962); MSc Sri Venkateswara (1965); PhD Utkal (1969). Spec: Plant pathology; rice, wheat, millets, groundnuts, soybeans; breeding for disease resistance, epidemiology and ecology of the pathogens, biochemistry of infected plants. Exper: Research scholar (1965-69); Junior Plant Pathologist (1969-present); served as member of Committee on International Bacterial Blight Screening Trial; attended conferences at IRRI. Title: Junior Plant Pathologist (Bacteriologist). Address: Central Rice Research Institute, Cuttack-753006, Orissa, INDIA.

DIAZ, Efrain (1920). Cit: Colombia. Lang: Spanish, English. Acad Degree: National Univ (1946). Spec: Genetics, plant breeding; maize, sorghum, beans; seed production. Exper: Citrus research (1946-50); private cotton production (1950-53); Assoc Maize Breeder (1954-55); Head of local maize breeding program, ICA station (1955-66); Head of seed certification (1966-74); seed production and distribution (1974-present). Title: Technical Supervisor. Address: Aptdo Aereo 459, Palmira, COLOMBIA.

DIAZ-POLANCO, Carlos A. (1938). Cit: Venezuela. Lang: Spanish, English, Italian, French. Acad Degrees: BSc Southwestern Louisiana (1962); MSc Arkansas (1964); PhD California (1969). Spec: Plant pathology; beans, soybeans, groundnuts; tropical fruits; ecology of phytopathogenic fungi, diseases of legume crops. Exper: Research Asst, soil fungi (1964-66); Plant Pathologist in charge of research on legumes, Ministry of Agric. Title: Coordinator, Research Program in Legumes. Address: Centro Nacional de Investigaciones Agropecuarias, Aptdo 4653, Maracay, VENEZUELA.

DINA, Sunday Oladele (1940). Cit: Nigeria. Lang: Yoruba, English. Acad Degrees: BSc Ibadan (1966); MSc Indian Agric Research Institute, New Delhi (1972). Spec: Entomology; cowpeas, soybeans; pest control. Exper: Junior Research Officer (1966-68); Research Officer (Nov 1968-present); two conferences in Nigeria (1973, 1974); Grain Legume Improvement Workshop at IITA and International Centre for Insect Physiology and Ecology at FDAR. Title: Research Officer. Address: Federal Dept of Agric Research (FDAR), P.M.B. 5042, Ibadan, NIGERIA.

DINCER, Naim (1934). Cit: Turkey. Lang: Turkish, English. Acad Degrees: BSc

Ankara (1956); PhD Univ of Ege (1972). Spec: Plant breeding, agronomy; wheat, safflower; wheat breeding. Exper: Research Asst (1958-59); safflower breeding Project Leader (1960-66); wheat breeding Project Leader (1967-73); Agric Research Institute Director (1973-present); training in U.S.A., Netherlands, Mexico (1960, 1968, 1972). Title: Director. Address: Eskisehir Agric Research Institute, PD 17 Eskisehir, TURKEY.

DIVINAGRACIA, Gil G. (1935). Cit: Philippines. Lang: Filipino, English. Acad Degrees: BSA Philippines (1956); MSc California (1962); PhD Florida (1967). Spec: Agronomy, plant pathology. Exper: Student Asst UPCA (1955-56); Asst Instructor in Agronomy (1956-57); Graduate Research Fellow, Plant Pathology (19[illegible]-59); Research Asst, Plant Pathology (1959-62); Research Instructor, Plant Pathology (1962-67); Asst Professor (1968-present); attended 12 international conferences; 7 papers published. Title: Asst Professor, Plant Pathology. Address: Dept of Plant Pathology, Univ of Philippines, College, Laguna, PHILIPPINES.

DO, Chuong Van (1949). Cit: Vietnam. Lang: Vietnamese, English. Acad Degree: Univ of Cantho (1968-72). Spec: Agronomy; rice and soybeans; genetics and plant breeding. Exper: Research and teaching experience. Title: Instructor. Address: Faculty of Agric, Univ of Cantho, SOUTH VIETNAM.

DOBEREINER, Johanna (1924). Cit: Brazil. Lang: German, Portuguese, English, French. Acad Degrees: BSc Rio de Janeiro (1956); MSc Wisconsin (1963). Spec: Soil microbiology; soybeans, beans, sorghum, forage grasses and legumes; nitrogen fixation in legume and grass associations. Exper: Soil Microbiology Researcher (1951-present); Professor at UFRRJ Graduate School; 105 published papers. Title: Head, Soils Section, IPEACS, EMBRAPA. Address: IPEACS, Km 47, via Campo Grande ZC-26 Guanabara, BRAZIL.

DOKU, Emmanuel Victor (1931). Cit: Ghana. Lang: English, Ga, Twi, Fante. Acad Degrees: BSc Univ College (1956); MSc Institute of Biology, London (1963). Spec: Agronomy, plant breeding; yams, cassava, grain legumes; physiological factors influencing yield attainment, floral biology, secuality in yams. Title: Senior Lecturer. Address: Crop Science Dept, Univ of Ghana, Legon, GHANA.

DONGO, Segundo L. (1927). Cit: Peru. Lang: Spanish, English. Acad Degrees: Ing Agr La Molina (1957); MSc Turrialba (1967). Spec: Agronomy, plant pathology; beans, maize, potatoes; taxonomy and control. Exper: 17 yrs. Title: Head, Plant Pathology Dept. Address: Estacion Experimental Agraria La Molina, Aptdo 2791, Lima, PERU.

DREIFUSS, Walter (1923). Cit: Germany (Fed Rep). Lang: German, Spanish, English, French. Acad Degree: Chem Eng Univ Concepcion, Chile. Spec: Biochemical engineering, fermentation, growth stimulation of plants with living microorganisms, protein production from plant and through single-cell organisms; sorghum, sweet lupines; protein, growth stimulation of plants in general and vegetable conservation through unconventional methods. Exper: Professor of Agric Chemistry and Biochemical Engineering; Advisor, UNESCO (1967-70) and FAO (1970-74); major areas: biochemical engineering, food technology and conservation, protein generation, amino acid separation, consultant on biochemical engineering. Title: Professor. Address: P.O. Box 2438, Lima, PERU.

DRILON, Jose Dumancas, Jr. (1928). Cit: Philippines. Lang: Filipino, English. Acad Degrees: AB Philippines (1957); BIM Philippines (1961); MBA Philippines (1968). Spec: Agribusiness; rice, corn; marketing. Exper: Member and Officer National Rice and Corn Corp (1954-59); various administrative positions with IRRI (1959-71); Under Secretary for Agric, Philippines (1971); Acting Secretary for Agric (1971); numerous consultant assignments for international organizations; Director, SEARCA (present); conferences and travel in 32 countries in Europe, Asia and the Americas; published two books and more than 60 papers. Title: Director, Southeast Asian Regional Center for Graduate Study and Research in Agric. Address: SEARCA, College, Laguna E-109, PHILIPPINES.

DRUMMOND, Gladstone A. (1915). Cit: Brazil. Lang: Portuguese, English, Spanish. Acad Degree: Eng Agr Vicosa, Brazil (1937). Spec: Plant breeding; maize, sorghum; protein quantity and quality. Exper: Professor, Universidade Federal de Vicosa (1938-46); Breeder for Sementes Agroceres (1945-present). Title: Technical Director. Address: Av Vieira de Carvalho, 40-2° Andar-Caixa Postal 30.723, Sao Paulo 01210, BRAZIL.

DUARTE, Rodrigo A. (1934). Cit: Colombia. Lang: Spanish, English, Italian. Acad Degrees: MSc, PhD. Spec: Plant breeding; grain legumes; genetics, administration. Expert 12 yrs. Title: Asst Director. Address: Fodd and Agric Organization, Via delle Terme di Caracalla, Rome, ITALY.

DUONG, Le Thanh (1950). Cit : Vietnam. Lang: Vietnamese, English, French. Acad Degree: BSc Univ of Cantho (1972). Spec: Agronomy. Title: Instructor. Address: The Faculty of Agric, Univ of Cantho, Cantho, SOUTH VIETNAM.

DUTT, B. L. (1916). Cit: India. Lang: Punjabi, Hindi, English. Acad Degrees: BSc Lahore (1938); MSc Lahore (1939); PhD Chandigarh (1965). Spec: Plant pathology, breeding; potatoes, sugarcane; potato late blight -- control with fungicides and breeding for resistance. Exper: Botany Lecturer (1940-47); Senior Mycological Asst, sugarcane (1947-49); Field Pathologist, sugarcane (1949-51); Asst Plant Pathologist (1951-63); Plant Pathologist at Central Potato Research Institute (1963-73); Potato Development Officer, Kathmandu (1973-present). Title: Potato Development Officer, Indian CooperationMission, Kathmandu, NEPAL. Address: Central Potato Research Institute, Simla, INDIA.

DUTTA, Tushar Ranjan (1931). Cit: India. Lang: Bengali, English, German, Hindi, Oriya. Acad Degrees: BSc (Hon) (1951) and MSc (1953) Utkal Univ (India); PhD Chicago (1962). Spec: Plant physiology weed science; potatoes rice, wheat, grain legumes, horticulture crops; plant physiology (bioregulation), plant nutrition, weed science, physiological and biochemical basis of productivity. Exper: Lecturer in Botany (1953-60); Resident Asst, Dept of Botany, Chicago (1960-62); Visiting Instructor of Biological Sciences at Illinois (1962-63); Physiologist, Central Potato Research Institute (India) (1964-67); Head of Division, Weed Ecology & Control (1967-present). Title: Head of Division (Weed Ecology & Control). Address: Indian Grassland and Fodder Research Institute, Jhansi, (U.P.), 284001, INDIA.

EBONG, Ukut Udodo (1938). Cit: Nigeria. Lang: Efik, English, Hausa. Acad Degrees: BSc Michigan State; MSc Michigan State (1963). Spec: Crop science, genetics, plant breeding; grain legumes, maize; yield components analysis. Exper: One year training, International Training Center for Genetics and Plant Breeding (1966); Acting Deputy Director of Federal Agricultural Research (1969-71); Head, Plant Breeding Division (1966-present); two workshops on agric planning. Title: Principal Research Officer. Address: Federal Department of Agricultural Research, Post Box 5042, Moor Plantation, Ibadan, NIGERIA.

ECHANDI, Ronald (1934). Cit: Costa Rica. Lang: Spanish, English, French, German. Acad Degrees: Ing Agron, Costa Rica (1956); MA Turrialba, (1958); MSc Cornell (1961); PhD Cornell (1965). Spec Plant breeding; maize, soybeans, beans; protein quality, seed pathology and physiology. Exper: President Nacional Research Committee (1967); Post-Doctoral Fellow, Cornell (1967-69); Guest Lecturer in Plant Breeding, I.I.C.A., Turrialba, Costa Rica (1969-71). Title: Associate Professor of Plant Breeding, and Director of the Seed and Grain Laboratories. Address: College of Agriculture, University of Costa Rica, San Jose, COSTA RICA.

EDJE, Oghenetsabuko Todo (1940). Cit: Nigeria. Lang: Urhobo, English. Acad Degrees: BSc Michigan State (1965); MSc Michigan State (1966); PhD Iowa State (1970). Spec: Crop physiology, seed physiology; beans, soybeans, cowpeas, maize, cassava; physiological determinants of crop yield and fertilizer use. Exper: Research Asst, soybeans (1966-70); Asst Prof agronomy and seed physiology (1970-72); Acting Head, Crop Production Dept (1973 to present); several international conferences. Title: Acting Head, Crop Production Department. Address: Bunda College of Agriculture, University of Malawi, P.O. Box 219, Lilongwe, MALAWI.

EGUNJOBI, Olufunke Agbeke (Mrs) (1940). Cit: Nigeria. Lang: Yoruba, English. Acad Degrees: BSc Ibadan, Nigeria (1964); MSc Massey Univ, New Zealand (1967). Spec: Nematology, zoology; maize, cowpeas, groundnuts; improvement of maize yield through cultural control of nematodes. Exper: Nematologist, Research Officer (in training) (1964-66); Specialist Scientist (Nematologist) (1967-68); Post-Doctoral Research Fellow in Nematology (1968-71); Nematology Lecturer (1971 to present). Title: Lecturer. Address: Department of Agriculture Biology, University of Ibadan, NIGERIA.

EKANDEM, Moses J. (1923). Cit: Nigeria. Lang: Ibibio, Hausa, English. Acad Degree: Agr Cert, Samaru (1946). Spec: Field experimentation; cassava, maize, beans; cassava breeding. Exper: Cereal breeding (1946-49); cassava breeding (1950-73); Officer in Charge, agricultural research sub-station (1970-present); published six technical bulletins on cassava research. Title: Senior Technical Officer. Address: Federal Department of Agricultural Research, P.M.B. 1032, Uyo, Southeastern State, NIGERIA.

EKPENYONG, Thomas E. (1939). Cit: Nigeria. Lang: Efik, English, Italian. Acad Degrees: Diploma Sch of Agric Ibadan (1962); Doctorate Catholic Univ, Piacenza, Italy (1968). Spec: Genetics, nutrition; maize, other cereals, grain legumes; opaque-2 maize, protein quantity and quality. Exper: Research Collaborator in Maize Genetics, Institute of Plant Breeding, Bologna, Italy (1967-69); Research Trainee, Institute of Plant Breeding, Copenhagen, Denmark (1968); Lecturer in Nutrition Biochemistry (1969-present); 4 international conferences. Title: Lecturer in Nutrition Biochemistry. Address: Department of Animal Science, University of Ibadan, Ibadan, NIGERIA.

EL-AZIZI, Abdel-Fattah Mohamed (1918). Cit: Egypt. Lang: Arabic, English. Acad Degrees: BSc Cairo (1944); MSc Ein-Shams Univ (1967); PhD Ein-Shams (1972). Spec: Plant breeding; rice; developing high-yielding varieties of rice resistant to diseases and pests, high protein and grain quality. Exper: Research Asst, rice (1945-54); Research Officer (1954-58); Sr Researcher (1958-73); Director (1973-present). Title: Director. Address: Rice Research Section, Field Crops Research Institute, Agricultural Research Center, Orman, Giza, EGYPT.

EL-ERYANI, Abdel Karim A. (1938). Cit: Yemen. Lang: Arabic, English. Acad Degrees: Southwest Texas State (1958-59); Oklahoma State (1959-60); Georgia (1960-64); Yale (1964-68). Spec: Plant breeding, genetics; maize, sorghum, barley, wheat; maize breeding. Title: Chairman, Central Planning Organization. Address: P.O. Box 175, Sana'a, YEMEN.

EL ROUBY, Mohamed M. (1936). Cit: Egypt. Lang: Arabic, English. Acad Degrees: BSc Alexandria Univ (1957); MSc Iowa State (1963); PhD Iowa State (1965). Spec: Crop breeding, statistical genetics; sorghum, maize, millet, wheat; crop improvement. Exper: Teaching Asst, Crop Science (1957-61); Asst Prof (1966-71), Assoc Prof (1971-73); Sr Research Fellow, Sorghum Breeding (1973-present). Title: Sorghum Breeder. Address: Institute of Agricultural Research, ABU-Samaru, NIGERIA.

EMPIG, Laures T. (1939). Cit: Philippines. Lang: Filipino, English. Acad Degrees: BSc (1961) and MSc (1965), Univ of Philippines; PhD Iowa State (1969). Spec: Plant breeding, genetics & statistics; sugarcane, soybeans and corn. Exper: Research Asst, then Instructor, Univ of Philippines, College of Agric (1961-64); Research Asst, then Assoc, Iowa State (1965-69); Post-doctoral Fellow, Nebraska (1969-70); Professor, Univ of Philippine Sugar Institute (1972-74); Visiting Professor, Univ of Philippines (1973-74). Title: Director for Research. Address: Philippine Sugar Institute, North Ave, Diliman, Quezon City, PHILIPPINES.

ENGLESTAD, Orvis P. (1928). Cit: U.S.A. Lang: English. Acad Degrees: BSc Minnesota (1952); MSc Minnesota (1954); PhD Iowa (1960). Spec: Soil fertility; rice, maize, wheat; fertilizer evaluation. Exper: Agric extension (1953-55); research in soil management and fertility (1955-60); agro-economic research and fertilizer evaluation, TVA (1960-present); TVA/USAID Project on fertilizers for rice; extensive travel in Asia. Title: Research Agronomist. Address: Soils and Fertilizer Research Branch, Division of Agricultural Development, Tennessee Valley Authority (TVA), Muscle Shoals, Alabama 35660, U.S.A.

ENYI, Brown A.C. (1934). Cit: Nigeria. Lang: Igbo, English. Acad Degrees: BSc London (1958); MSc London (1960); PhD London (1966). Spec: Crop physiology; rice, yams, sweet potatoes, soybeans, sorghum, maize, groundnuts; agronomy. Exper: Agronomist (1960-61); Lecturer in Crop Production, Nigeria (1961-67); Senior Lecturer, Head of Agronomy, Sierra Leone (1967-69); Symposium on Root Crops, Hawaii (1970). Title: Professor and Dean of Agriculture. Address: University of Papua, P.O. Box 4820, Papua, NEW GUINEA.

ERIKSMOEN, Duane A. (1934). Cit: U.S.A. Lang: English. Acad Degree: BSc North Dakota (1956). Spec: Agric education, agronomy; wheat, barley, maize, rice; development of new varieties, use of irrigation to increase food production. Exper: Vocational Agric Teacher (1957-63); Soil Conservationist and Irrigation Engineer (1963-68); Irrigation Officer for Smallholders, Tanzania (1968-70); Farm Manager, foundation seed farm (1973-present). Title: Farm Manager/Agricultural Officer. Address: Ministry of Agriculture, Arusha Foundation Seed Farm, P.O. Box 1377, Arusha, TANZANIA.

ERSKINE, William (1952). Cit: U.K. Lang: English, French. Acad Degree: BA Cambridge (1973). Spec: Plant breeding; grain legumes; breeding for increased yield and protein content. Exper: Grain legume project, Univ of Papua. Title: Tutor. Address: Department of Agriculture, Box 4820, University of Papua, NEW GUINEA.

ESCOBAR PADILLA, Raul E. (1932). Cit: Ecuador. Lang: Spanish. Acad Degrees. Ing Agr Ecuador (1959); MSc Mexico (1970). Spec: Genetics; wheat, barley, oats; plant breeding. Exper: Lecturer in plant science (1959-62); Wheat Crops Inspector (1962-64); Head of Cereals Dept (1970-present). Title: Head, Cereals Department. Address: Santa Catalina Experiment Station-INIAP, Apartado Aereo 2600- Quito, ECUADOR.

ESCURO, Pedro B. (1923). Cit: Philippines. Lang: Bicol, Tagalog, English. Acad Degrees: BSA Univ Philippines (1952); MSc Cornell (1954); PhD Minnesota (1959). Spec: Plant breeding & genetics; rice, wheat; breeding. Exper: Teaching field crops and plant breeding (1954-74); Head, Rice Section, Univ Philippines (1959); Officer in Charge, Plant Breeding, Univ Philippines (1960-64); Coordinator, Rice Research Program, Univ of Philippines (1964-74); Leader, Rice Variety Improvement Group, Philippine Seed Board (1959-74); attended international conferences in Rome, USSR, India and several in the Philippines. Title: Professor of Agronomy. Address: Univ of the Philippines, College, Laguna, PHILIPPINES.

ESPINOSA, Ezequiel (1928). Cit: Panama. Lang: Spanish, English. Acad Degrees: BSA Puerto Rico (1952); MSc Texas A&M (1961). Spec: Agronomy; rice, maize, sorghum; production and cultural practices. Exper: Research Agronomist (1952-54); Regional Supervisor (1954-59); Research Advisor (1961-68); Prof Plant Science and Experimental Design (1961-74); Research Agronomist and Dept Head (1972-74). Title: Professor and Head of the Agronomy Department. Address: Facultad de Agronomia, Universidad de Panama, Estafeta Universitaria, Panama, REPUBLIC OF PANAMA.

ESPINOZA, Segundo (1941). Cit: Nicaragua. Lang: Spanish. Acad Degree: Ing Agron, National School of Agric (1967). Spec: Basic grain crops; chemical weed control. Exper: Testing herbicides, Ministry of Agric, 5 yrs; now in charge of weed control research. Title: Head, Section of Chemical Weed Control. Address: Escuela Nacional de Agricultura y Ganaderia, Apartado 453, Managua, NICARAGUA.

EUGENIO, Teofilo S. (1924). Cit: Philippines. Lang: Ilocano, Tagalog, English. Acad Degrees: BSc Philippines (1950); MSc Philippines (1965). Spec: Agronomy, plant physiology, botany; rice, maize, onions, tomatoes; cultural management, fertilization, weed control. Exper: Univ Instructor (1949-52); Supervising Agronomist and Superintendant, Cagayan Valley Experiment Station (1952-65); Rice Research Coordinator and Head, Agronomy and Soils Dept, Maligaya Rice Research and Training Center (1965-72); Director, MRRTC (1972-present); Asian Development Bank Consultant; 7 international conferences; trained in 6 international programs. Title: Rice Research and Training Director. Address: Maligaya Rice Research and Training Center (MRRTC), Munoz, Nueva Ecija, PHILIPPINES.

EVANS, Alice Margaret (1927). Cit: U.K. Lang: English. Acad Degrees: BSc Wales (Aberystwyth) (1948); PhD Wales (1957); MA Cambridge (1966). Spec: Genetics and plant breeding; beans, cowpeas; evolutionary genetics and breeding. Exper: Postgraduate at Univ Lund, and Swedish Seed Assoc (1950); Scientific Officer in forage legume breeding, Welsh Plant Breeding Station, Aberystwyth (1950-64); Lecturer in agricultural botany, Univ Reading (1964-66); Univ Teaching Officer, Cambridge (1966-75); also now in charge of group working on genetics and breeding of grain legumes collaborating with developing countries. Title: University Teaching Officer. Address: Dpeartment of Applied Biology, University of Cambridge, Downing Street, Cambridge CB2 3DX, ENGLAND.

EVANS, Lloyd T. (1927). Cit: Australia. Lang: English. Acad Degrees: MSc Univ of New Zealand (1950); PhD Oxford (1954); DSc Canterbury (1973). Spec: Plant physiology; wheat, maize, rice, soybeans; limitations and limits to yield. Exper: Harkness Fellow. California Institute of Technology (1954-56); Research Scientist, CSIRO Division of Plant Industry (1956-present); Pioneer Fellow in plant physiology, USDA, Beltsville (1963-64); Overseas Fellow, Churchill College (1969-70); Fellow, Australian Academy of Science; conferences at CIMMYT, IRRI, India, Japan. Title: Chief, CSIRO Division of Plant Industry. Address: P.O. Box 1600, Canberra City, ACT 2601, AUSTRALIA.

EXCONDE, Ofelio R. (1932). Cit: Philippines. Lang: Filipino, English. Acad Degrees: BSc Philippines (1955); MSc Philippines (1957); PhD Kansas (1961). Spec: Plant pathology, fungicides; maize, rice, sorghum, sugarcane; downy mildew of maize, disease resistance and control. Exper: Univ Instructor (1961-62); Asst Prof (1962-70); Assoc Prof, Plant Pathology (1970-present). Title: Associate Professor. Address: Department of Plant Pathology, University of the Philippines at Los Banos, College, Laguna, PHILIPPINES.

EZEDINMA, Frederick O. C. (1931). Cit: Nigeria. Lang: Igbo, English. Acad Degrees: BSc London (1958); MSc London (1961); PhD London (1971). Spec: Agronomy, crop physiology; cowpeas, soybeans, bambarra groundnuts, yams, beans, forage crops; environmental influences on crop growth, development, and yield. Exper: Research Agronomist, grain legumes (1961-64); postdoctoral teaching fellowship (1964-66); Lecturer, Crop Science (1966-present). Title: Senior Lecturer. Address: Department of Crop Science, University of Nigeria, Nsukka, NIGERIA.

FADDA, Nasrat R. (1924). Cit: U.K. Lang: Arabic, English, French, German. Acad Degrees: BA Beirut (1945); BSc London (1951); PhD London (1955). Spec: Plant physiology, agronomy; groundnuts, sesame, sorghum; crop water requirements, cropping systems and rotations. Exper: Lecturer in Biology (1945-47); engaged in conducting and supervising research (1955-67); FAO Cotton Breeder-Agronomist (1967-69); FAO Project Manager, Ethiopia (1969-present); extensive travel in Africa, Europe and the Middle East: professional broadcasting experience with BBC. Title: Project Manager. Address: P.O. Box 2003, Addis Ababa, ETHIOPIA.

FASHAKIN, Joseph Bandele (1939). Cit: Nigeria. Lang: Yoruba, English. Acad Degrees: BSc McGill (Canada) (1964); MSc Michigan State (1966); ScD, Harvard (1971). Spec: Nutritional biochemistry; citrus, mangoes, bananas, pulses, cassava, yams; preservation methods on fruits, effect of processing on the nutritive value of fruits and vegetables. Exper: Doctorate research thesis on protein metabolism in amino acid deficiencies; teaching and research at Univ of Ife (1971-present); research mainly of preservation and nutrition values of fruits; attended International Training Course in Food Technology, Melbourne (4 months in 1974); attended Diatetics Congress in West Germany (1973); Secretary General of Nigeria Nutrition Society. Title: Lecturer in Biochemical Nuteition. Address: Dept of Food Science and Technology, Univ of Ife, Ile-Ife, NIGERIA.

FAYEMI, Adeboyejo Agbolade (1922). Cit: Nigeria. Lang: Yoruba, English. Acad Degrees: BSc Langston (Oklahoma) (1952); MSc Illinois (1954); PhD Kansas State (1956). Spec: Agronomy; maize, sorghum, rice, yams, millet; plant nutrition. Exper: Crops research for USDA at Kansas State (1954-57); Lecturer at Univ College, Ibadan (1961-64); Senior Lecturer at Ife and Ibadan Universities (Nigeria), Njala Univ (Sierra Leone) (1962-68); Professor and Head of Dept at Ibadan since 1968; Dean of Faculty of Agric since 1972; attended international conferences in Africa. Title: Professor. Address: Univ of Ibadan, Ibadan, NIGERIA.

FERNANDEZ-NORTHCOTE, Enrique N. (1941). Cit: Peru. Lang: Spanish, English. Acad Degrees: Ing Agr La Molina (1964); MSc California (1968). Spec: Agronomy, plant pathology; vegetable crops, potatoes, beans; plant diseases and control. Exper: Assoc Professor, Plant Pathology and Research (1964-present); 13 congresses, symposia, scientific meetings in Peru and U.S.A. Title: Assoc Professor. Address: Departamento de Sanidad Vegetal-Seccion Fitopatologia,Universidad Nacional Agraria, La Molina, Aptdo 456, Lima, PERU.

FERNANDO, Henry E. (1923). Cit: Sri Lanka. Lang: Sinhalese, English. Acad Degrees: BSc Ceylon (1947); MSc Illinois (1950); PhD Illinois (1951). Spec: Economic entomology, insecticide toxicology, physiology; rice, vegetables, fruit; rice insect ecology, selection of crop varieties for insect resistance, biological control of insect pests. Exper: Head, Division of Entomology (1952-present); research on crop pests and their control; Lecturer and External Examiner in economic entomology, Univ of Sri Lanka; published numerous research papers in U.S.A., U.K. and Sri Lanka scientific journals; international conferences in eight countries. Title: Senior Entomologist and Head, Division of Entomology. Address: Central Agric Research Institute, Dept of Agric, Gannoruwa, Peradeniya, SRI LANKA.

FIGUEROA, Rafael T. (1938). Cit: Mexico. Lang: Spanish, German. Acad Degrees: Agr Ing Mexico (1962); Dr Sc Agr Gottingen. Spec: Agronomy, mutation breeding; wheat, beans, maize, barley; mutation breeding for yield, protein quantity and quality and plant idiotypes. Exper: Research in mutation breeding on wheat, beans and maize; plant competition studies on wheat and barley; Professor of Genetics and Mutation Breeding (1969-present); Organizer/Coordinator, 1st Mexican Symposium on Mutations (1970); extensive travel and study in USSR (1972). Title: Professor/Investigator in charge of Mutation Breeding Section. Address: Rama de Genetica, Colegio de Postgraduado, Chapingo, MEXICO.

FLETCHER, Rowland E. (1941). Cit: Guyana. Lang: English. Acad Degrees: BSc Univ of the West Indies (1965); MSc Univ of the West Indies (1970). Spec: Agronomy; maize, soybeans, blackeye peas, peanuts; soil fertility studies with these crops on infertile brown sand soils and commercial production. Exper: Acting Head, Crop Research Division, Ministry of Agric (1971-72); part-time Lecturer in Crop Science, Guyana School of Agric; special training course at Univ of Florida on utilization of infertile sandy soils for crop production (1967); UNDP conference, Colombia (1974). Title: Production Manager (crops). Address: Ministry of Agric, Central Agric Station, Mon Repos, East Coast Demerara, GUYANA.

FOLQUER, Fausto (1912). Cit: Argentina. Lang: Spanish, English. Acad Degrees: Ing Agron, National Univ, Buenos Aires (1935); MSc Louisiana State (1957). Spec: Vegetable crops; sweet potatoes; plant breeding and culture. Exper: Research and teaching. Title: Professor Titular. Address: Universidad Nacional de Tucuman, Laprida 835, Tucuman, ARGENTINA.

FRANCIS, Paul (1940). Cit: U.K. Lang: English, French. Acad Degrees: BSc London (1964); MSc Reading (1970). Spec: Agronomy, crop physiology; rice sugarcane, wheat, beans, maize; irrigation regimes and physiology of irrigated crops, rice varietal improvement, effect of climate on rice quality. Exper: Commonwealth Bureau of Plant Breeding and Genetics (1965-66); Research Agronomist, West Indies (1966-69); Rice/Irrigation Agronomist, Irrigated Rice Project (1970-present); East African Cereals Conference (1974), Sugar Technologists Conferences - West Indies (1966), International (1974). Title: Agronomist, Overseas Development Administration. Address: Dwangwa Project, Private Bag 3, Nkhota Kota, MALAWI.

FRANCKOWIAK, Jerome Donald (1943). Cit: U.S.A. Lang: English. Acad Degrees: BSc (1966); MSc (1968 and PhD (1970) Wisconsin. Spec: Agronomy, plant breeding, genetics; potatoes, cowpeas, wheat; breeding, genetics and cytogenetics. Exper: Teaching plant breeding and genetics, and research on cowpea improvement at Ife (Nigeria) (1970-73); cowpea population improvement at IITA (Nigeria) (1973); hybrid wheat development (Post-doctorate Fellow) North Dakota State (1974-75). Title: Plant Breeder. Address: International Potato Center, Aptdo 569, Lima, PERU.

FREYTAG, George F. (1928). Cit: U.S.A. Lang: English, Spanish. Acad Degrees: AB Wyoming (1948); MA Washington (1950); PhD Washington (1955). Spec: Plant breeding; beans; crop origin, race formation, crop improvement. Exper: Bean collection and classification, Rockefeller Foundation, Mexico (1953-55); Agronomist and Teacher, Ministry of Agric, Nicaragua (1955-57); Teacher, Plant Breeder, Field Production Consultant, Honduras (1958-72). Title: Legume Breeder. Address: Federal Experiment Station, P.O. Box 70, Mayaguez, Puerto Rico, U.S.A.

FRIBOURG, Cesar E. (1939). Cit: Peru. Lang: Spanish, English. Acad Degrees: BSc La Molina (1966); MSc Wisconsin (1961). Spec: Plant pathology; potatoes, cucurbits; identification of viruses affecting Peruvian crops. Exper: Research Asst, potatoes (1967); Asst Professor, plant pathology (1970-present); Assoc Virologist, International Potato Center (1973-present). Title: Asst Professor of Plant Pathology. Address: Departamento Sanidad Vegetal - Universidad Nacional Agraria La Molina, Lima, PERU.

FROMAYAN, Alfred M. (1934). Cit: Liberia. Lang: Kpelle, English. Acad Degree: BSc Prairie View, Texas (1961). Spec: General agric; rice, maize; extension administration. Exper: County Agent (1962-64); Project Manager (1965-68); Asst Director of Extension (1969-70); Director of Extension Services (1971-present). Title: Director. Address: Ministry of Agricculture, Monrovia, LIBERIA.

FUENTES, Gustavo E. (1929). Cit: Ecuador. Lang: Spanish. Acad Degeee: Ing Agr Buenos Aires (1962). Spec: Plant breeding, botany; oats, wheat, rye, maize, forage and grain. Exper: Asst in wheat, oats (1963-70); Chief of Oats Section (1970-74); Assoc Professor of Botany at Central Univ (1964-68); Professor (1969-74). Title: Chief in Oat Research. Address: Santa Catalina Experiment Station - INIAP, Aptdo 340, Quito, ECUADOR.

FUENTES O., Sebastian A. (1922). Cit: Guatemala. Lang: Spanish. Acad Degrees: P.A. National School of Agric (1946); BSc Puerto Rico (1963); MSc Chapingo (1965). Spec: Plant breeding, genetics; maize, sesame. Exper: Ministry of Agric, Research breeding of sorghum, sugarcane, legumes, wheat, maize (1946-54); Chief, Maize Program (1955-57); Head, Dept of Agronomy (1957-60); Director, Experiment Stations (1965-67); Director, Agric Research (1967-70); Head, Maize Program (1970-73); Professor of General Biology and Genetics, Instituto Tecnico de Agricultura (1968-73); Coordinator and Member, Latin American Association of Agricultural Science; various national and international conferences. Title: Principal Investigator, Coordinator of Maize and Sesame Program of ICTA. Address: Edificio Galerias Espana, 4th Piso, 7 Av. 11-59, Zona 9, GUATEMALA.

FUMAGALLI C., Astolfo (1926). Cit: Guatemala. Lang: Spanish, English. Acad Degrees: BSc Iowa State (1959); MSc North Dakota State (1964). Spec: Plant breeding, cereal technology; maize, wheat, beans, rice, soybeans; wheat breeding. Exper: Wheat research (1951-52); agric mechanization (1952-54); in charge of wheat program, SCIDA (1954-57); Chief, Agronomy Section, National Agric Institute (1959-61); Head, Regional Center at Labor Ovale (1961-70); wheat improvement training, CIMMYT (1949-51); seed technology training, Mississippi State (1958); Mutation Breeding, International Agency of Atomic Energy, Rome (1959); numerous conferences and many publications. Title: Deputy Director. Address: Instituto Ciencias Tecnologia Agricultura, Edificio Galerias Espana, 7a. Ave. 11-59, Zona 9, 5th Piso, GUATEMALA.

GAIEB, M'Hamed H. (1944). Cit: Tunisia. Lang: Arabic, English, French, Italian. Acad Degrees: Agric Eng Tunis (1967); MEd Colorado (1971). Spec: Agric extension; various crops; mass communications. Exper: Seminars and congresses on mass media and development of audio-visual education in Netherlands (1968), France (1969, 71), Tunisia (1972); Professor at the Institute of Journalism, Univ of Tunis. Title: Director of Information. Address: Extension Division, Dept of Agric, 30 Rue Alan Savary, Tunis, TUNISIA.

GALARRAGA G., Jose Rafael (1918). Cit: Ecuador. Lang: Spanish, French. Acad Degree: Ing Agron. Spec: Certified seed production. Exper: 31 yrs. Title: Head of the Seed Production Program. Address: Estacion Experimental Santa Catalina, Instituto Nacional de Investigaciones Agropecuaria (INIAP), Aptdo 2600, Quito, ECUADOR.

GAMEZ, Rodrigo (1936). Cit: Costa Rica. Lang: Spanish, English. Acad Degrees: Ing Agr Univ Costa Rica (1959); MSc Florida (1961); PhD Illinois (1967). Spec: Plant virology, plant pathology; potatoes, beans, maize, tomatoes, tobacco; virus characterization, insect transmission. Exper: Research Asst (coffee) (1957-59); Assoc Professor Plant Pathology (1966-70); Assoc Plant Pathologist at IIAS (1967-68); Senior Professor (1971-present); Director Graduate Studies in Agric (1973-74); Vice President of Research (1974). Title: Director of Plant Virus Laboratory. Address: Univ of Costa Rica, Ciudad Universitaria, San Jose, COSTA RICA.

GANDARILAS, Humberto (1918). Cit: Bolivia. Lang: Spanish, English, Quechua. Acad Degrees: Ing Agron Univ of Chile (1943); MSc Minnesota (1947). Spec: Horticulture; potatoes, wheat; breeding, genetics, botany and agronomy. Exper: Asst Professor (1942-46); Dean, Agric School (1949-50); Agric Experiment Station (1951-56); Director, Research Division (1957-65); General Director, Ministry of Agric (1969-71); wheat research (1972-present). Title: Head, Wheat Research. Address: Instituto Nacional del Trigo, Ministerio de Agricultura, La Paz, BOLIVIA.

GANGRADE, Govind A. (1922). Cit: India. Lang: Hindi, English. Acad Degrees: BSc Nagpur Univ (1946); MSc Indian Agric Research Institute (1954); PhD IARI (1969). Spec: Entomology; soybeans, pigeon peas; physiology, endocrinology, and general entomology. Exper: Research Asst (1946-56); Lecturer, Senior Lecturer, Professor of Entomology (1956-65); Entomologist (1965-69); Principal Investigator on soybean insects (1969-present); received entomology training in U.K. and U.S.A. Title: Principal Investigator. Address: Dept of Entomology, J. N. Agric University, Jabalpur (M.P.) INDIA.

GARCIA, Hector Lopez. (1942). Cit: Mexico. Lang: Spanish. Acad Degrees: Ing Agr, Esc Sup de Agric (1966); MC Tech Inst, Monterrey (1969). Spec: Agronomy, plant breeding; grain legumes; yield, pest resistance, photoperiodism. Exper: Research, grain legumes (1966-74); travel to Colombia and U.S.A. Title: Investigator in Food Legumes. Address: Centro de Investigaciones Agricolas, Aptdo Postal #356, Culiacan, Sinaloa, MEXICO.

GARCIA, Jorge Ivan A. (1927). Cit: Colombia. Lang: Spanish. Acad Degree: BSc Medellin (1955). Spec: Agronomy, genetics; beans, soybeans, cowpeas; crop improvement. Exper: Research on beans (1955-present); Professor in bean cultivation (1959-60); Regional Director, Program on Grain Legumes; conferences on beans in Peru, El Salvador, Colombia. Title: Ingeniero Agronomo. Address: Instituto Colombiano Agropecuario (ICA), Aptdo Aereo 51764, Medellin, Antioquia, COLOMBIA.

GARCIA, Juan (1938). Cit: Nicaragua. Lang: Spanish, English. Acad Degree: Ing Agron National School of Agric (1966). Spec: Fertilization of basic grain crops. Exper: Soil Classification Cadaster Service, 3 yrs; soils laboratory, Ministry of Agric, 4 yrs; Soil Fertility Program, Ministry of Agric, 1 yr. Title: Head, Fertilization Program. Address: Escuela Nacional de Agricultura y Ganaderia, Aptdo 453, Managua, NICARAGUA.

GBIRICHE, Gregory Z. (1940). Cit: Ghana. Lang: English. Acad Degree: BSc Lincoln (1968). Spec: Agronomy; rice, sorghum, groundnuts, yams. Title: Asst Research Officer. Address: Crops Research Institute, P.O. Box 3785, Kumasi, GHANA.

GEBREKIDAN, Brhane (1936). Cit: Ethiopia. Lang: Amharic, English. Acad Degrees: BSc Haile Selassie I Univ (1961); MSc Nebraska (1964); PhD Minnesota (1969). Spec: Plant breeding; maize, sorghum, barley; sorghum breeding. Exper: Agronomist and Plant Breeder (1964-present); Head, Dept of Plant Sciences (1970-74). Title: Leader, Ethiopian Sorghum Improvement Program. Address: College of Agric, Haile Selassie I Univ, P.O. Box 138, Dire Dawa, ETHIOPIA.

GEBREMARIAM, Hailu (1942). Cit: Ethiopia. Lang: Amharic, English. Acad Degrees: BSc Haile Selassie I Univ (1972); MSc Univ of Manitoba (1974). Spec: Breeding, genetics; triticale, wheat, tef; improvement of yield, nutritional quality. Exper: Asst Research Officer (1972-73); Research Officer in charge

Triticale Project (1974-present); International Wheat Genetics Symposium, U.S.A. (1973), International Triticale Symposium, Mexico (1973); travel in Europe, Canada, U.S.A. and Mexico. Title: Research Officer in charge of Triticale Project. Address: Institute of Agric Research (IAR), P.O. Box 2003, Addis Ababa, ETHIOPIA.

GELAW, Bantayehu (1940). Cit: Ethiopia. Lang: Amharic, English. Acad Degrees: BSc Haile Selassie I (1962); MSc Arizona (1965); PhD Purdue (1971). Spec: Agronomy; sorghum, maize, wheat, oil crops; plant breeding. Exper: Graduate Asst (1962-63); Lecturer and Senior Agronomist (1965-68); Senior Loan Officer, AID Bank (1971-73); Head of Dept (1973-74). Title: Head, Agric Development Dept. Address: Awash Valley Authority, P.O. Box 591, Addis Ababa, ETHIOPIA.

GETAHUN, Amare (1937). Cit: Ethiopia. Lang: Amharic, English. Acad Degrees: BSc College of Agric, HSIU (1960); MSc Rutgers (1963); PhD Florida (1969). Spec: Economic botany and plant taxonomy; root crops; ethnobotany, genetic resources and plant taxonomy. Exper: 8 yrs experience in study of flora of Ethiopia, and of edible plants of Ethiopia with emphasis on root crops; 7 yrs teaching of botany and plant taxonomy courses as well as forage and pasture crops; held the following positions: Dean of Students, Director of Administration, Director of Research and Development (which included extension activities), and Dean of College of Agric; special training in management at Wisconsin and in genetic resources at FAO/USSR seminar; post-doctoral work in crop resistance to insect infestations at O.S.U. (1969-70), taxonomy training at Kew Gardens; attended numerous international conferences including: Root and Tuber Crop Seminar, Nigeria; Third International Symposium on Tropical Root Crops, Nigeria, and Third East Africa Cereal Workshop. Title: Assoc Professor. Address: College of Agric, Box 138, Dire-Dawa, ETHIOPIA.

GHADERI, Ardeshir (1941). Cit: Iran. Lang: Persian, English. Acad Degrees: BSc Tehran (1963); MSc Michigan State (1966); PhD Michigan State (1969). Spec: Plant breeding; wheat, grain legumes. Exper: Research Asst, Michigan State; Asst Professor, Jundi Shapur Univ; Assoc Professor. Title: Dean, College of Agric. Address: Jundi Shapur Univ, Ahvaz, IRAN.

GHAIRAT, Ghulam Sakhi (1938). Cit: Afghanistan. Lang: Pushto Persian, English. Acad Degree: BSc Kabut Agricultural (1964); Dip Agric Sc Sidney Agricultural (1972). Spec: General agric, agronomy; sorghum, rice, wheat; seed production of cereals. Exper: Teacher, vocational agric, high school (1965-67), Deputy Director (1967-69); inspector for agric schools (1969-71); Director Agric Extension, Ministry of Agric and Irrigation (1973); Agribusiness Director since 1974. Title: Agribusiness Director. Address: Dept of Extension, Ministry of Agric and Irrigation, Kabul, AFGHANISTAN.

GHARTEY, Francis Naku (1933). Cit: Ghana. Lang: Fanti, English. Acad Degree: BSc Univ of Ghana, Legon (1958). Spec: Agronomy; maize, rice, sorghum, soybeans; management of large-scale cereal farms. Exper: One yr post-graduate training in soil and water conservation, engineering and agronomy in U.S.A. (1969-70); World Bank General Development Course (1965-66); Acting Head, Extension Services Division, Ministry of Agric (1967-68); 4 international conferences. Title: Executive Secretary. Address: Grains Development Board, P.O. Box 4000, Kumasi, GHANA.

GHODBANE, Allala (1941). Cit: Tunisia. Lang: Arabic, French, English. Acad Degrees: Agri Eng (1967); MSc Washington State (1972). Spec: Plant pathology; wheat; Septoria diseases of wheat. Exper: Training in England (1966), wheat extension with CIMMYT-Tunisian Government (1968-70); American Phytopathology Society meeting, U.S.A. (1971). Title: Engineer. Address: Phytopathology Division, Dept of Agric, 30 Alain Savary, Tunis, TUNISIA.

GHOSH, Amulya K. (1943). Cit: India. Lang: Hindi, English, Bengali, Oriya. Acad Degrees: BSc Bihar (1960); MSc Patna (1962); PhD Utkal (1973). Spec: Cytogenetics, plant breeding; rice; protein quality and quantity. Exper: Research on rice since 1963. Title: Senior Research Asst. Address: Central Rice Research Institute, Cuttack-753006, Orissa, INDIA.

GIATGONG, Piya (1935). Cit: Thailand. Lang: English. Acad Degrees: BSc Kasetsart; MSc Madras; PhD Texas A&M. Spec: Plant pathology; rice. Exper: Symposia at IRRI (1963, 1969); International Rice Commission meetings (1970, 1972). Title: Chief, Plant Pathology Branch. Address: The Rice Protection Research Center, Dept of Agric, Ministry of Agric and Co-operatives, Bangkok, THAILAND.

GIBBONS, Ronald William (1933). Cit: U.K. Lang: English. Acad Degrees: BSc Durham Univ (1955); D.A.S. Cambridge (1956); D.T.A. Imperial College of Tropical Agric, Trinidad (1957). Spec: Botany, plant breeding; groundnuts, tropical legumes; breeding for yield and disease resistance. Exper: Plant Breeder, groundnuts, Nigeria (1957-63); Plant Breeder, groundnuts, Agric Research Council of Central Africa (1964-67); Plant Breeder and Team Leader, Grain Legume

Productivity Research Team, Agric Research Council of Malawi (1964-present); conferences in U.S.A. and Central Africa. Title: Team Leader and Plant Breeder, Grain Legume Productivity Unit. Address: Agric Research Council of Malawi, Box 215, Lilongwe, MALAWI.

GODFREY-SAM-AGGREY, Wilhelm (1934). Cit: Ghana. Lang: Fante, English. Acad Degrees: BSc Accra (1960); MSc California (1964). Spec: Agriculture, horticulture; cassava, sweet potatoes, legumes, vegetable crops; fertilizer use, biochemical contents, development and management of crops. Exper: Agric Officer (1960-62); Research Officer (1962-66); Lecturer, Horticulture (1966-69); Lecturer, Agronomy (1969-71); Senior Lecturer and Head, Agronomy Dept (1971-72); Assoc Professor and Head, Agronomy Dept (1972-73); Professor and Head, Agronomy Dept (1973-present); Dean of Agric (1972-present); 11 conferences in Europe, U.S.A. and Africa. Title: Professor of Agronomy, Dean of Agric. Address: Faculty of Agric, Njala Univ College, Univ of Sierra Leone, P.M.B., Freetown, SIERRA LEONE.

GOETZE, Norman R. (1930). Cit: U.S.A. Lang: English. Acad Degrees: BSc Oregon State (1952); MSc Oregon State (1955); PhD Purdue (1960). Spec: Agronomy; wheat, barley, oats; dry land production techniques, varieties, quality, marketing. Exper: Instructor Farm Crops (1954-55); Instructor Agronomy (1955-59); Extension Agronomist (1959-present); Wheat Improvement Consultant to Jordan and Turkey (1967-70); Oregon State Univ Campus Coordinator of Jordan Wheat Improvement Project (1973-present). Title: Extension Agronomist. Address: Oregon State Univ, Corvallis, Oregon 97331 U.S.A.

GOLDIN, Eliahu (1904). Cit: Israel. Lang: Hebrew, German, English, Russian, French. Acad Degree: MSc Berlin, Landwirtschaftliche Hochschule (1932). Spec: Agronomy, plant breeding; peanuts; peanut breeding, varieties for direct consumption and oil purposes. Exper: Introduction and trials with forage crops, peanuts and soybeans (1935-50); plant breeding; irrigation, fertilizer experiments on peanuts (1950-present); peanut investigations cooperative projects in Southeast Asia, Africa and Latin America (1968-present). Title: Head of Peanut Research Division, Industrial Crops Dept. Address: The Volcani Center of Agric Research, Bet Dagan, P.O.B. 6, ISRAEL.

COLLIFER, David E. (1935). Cit: U.K. Lang: English. Acad Degrees: BSc Reading (1957); DTA West Indies (1967). Spec: Agronomy, pathology; taro, sweet potatoes, yams; pathology of taro, varietal work and fertilizer use with sweet potatoes, varietal work and storage of yams. Exper: Agric Officer, N.W.D. Guyana (1957-61); Agric Officer, British Solomon Islands (1962-66); Agronomist in charge of Research Station (1967-present); conference in Trinidad. Title: General Crops Agronomist. Address: Dala Research Station, Malaita, BRITISH SOLOMON ISLANDS.

GOMEZ, Arturo A. (1939). Cit: Philippines. Lang: Filipino, English. Acad Degrees: BSA Philippines (1958); MSc Philippines (1961); PhD North Carolina State (1966). Spec: Genetics, plant breeding, soils; sorghum, mungbeans, maize; breeding, multiple cropping. Exper: Research Asst (1958-69); Agronomy Instructor (1961-66); Asst Professor, UPCA (1966-73); Head, Plant Breeding (1966-69); Chairman, Dept of Agronomy (1970-71); Director of Instruction (1971-73); Assoc Professor of Agronomy (1973-present); Asst for Planning and Development (1973-present); professional travel on research to Japan, India, USSR, Singapore and Taiwan. Title: Assoc Professor of Agronomy and Asst for Planning and Development. Address: Univ of the Philippines at Los Banos, College, Laguna, PHILIPPINES.

GOMEZ, Pedro Leon (1942). Cit: Colombia. Lang: Spanish, English. Acad Degrees: BSc Tolima (1966); MSc National Univ, ICA (1968). Spec: Agronomy, plant breeding, genetics; potatoes, cassava; precocity, heredity of diseases in potatoes, protein quality. Exper: Asst Professor, Tolima Univ (1969-70); Assoc Professor, Valle Univ (1970-73); Geneticist, Root and Tuber Crops Program, ICA; Professor of Cytology, Graduate Program UN-ICA (1973-present); 5 conferences in Latin America. Title: Geneticist, Root and Tuber Crops Program. Address: Instituto Colombiano Agropecuario (ICA), Tibaitata, Programa de Tuberosas, A.A. 151123, El Dorado, Bogota, COLOMBIA.

GONZALES, Teodoro T. (1913). Cit: Philippines. Lang: Filipino, Bicol, Spanish, English. Acad Degrees: BSA Philippines (1934); MSc Mississippi State (1956). Spec: Seed technology, agronomy; maize, rice, field legumes, sorghum; plant breeding. Exper: Fiber Inspector (1934-45); Agric Teacher (1947-53); Research Leader in charge of corn improvement (1956-67); seed improvement training at several U.S. universities (1956); plant exploration and introduction training in Thailand, India, Sri Lanka, Malaysia and Indonesia (1970); seven interntional conferences; National Corn Production Coordinator (1966-70). Title: Plant Research Coordinator. Address: Bureau of Plant Industry, Manila, PHILIPPINES.

GONZALEZ, Hugo Rafael. (1943). Cit: Peru. Lang: Spanish, English. Acad Degrees:

Ing Agr, Univ Nac Agr del Norte (1967); Univ Nac Agr La Molina (1968). Spec: Agronomy, plant breeding; rice, vegetables; protein quantity, disease resistance, cultural practices. Exper: Asst in Genetics (1968); Technical Asst, vegetables (1969); Rice Breeder, CRIAN-[illegible] [illegible]-present); Chief, Plant Breeding Dept (1975). Title: Chief, Plant Breeding Dept. Address: Centro Regional de Investigacion Agraria del Norte, Aptdo 116, Chiclayo, PERU.

GONZALEZ FRANCO, Joaquin Andres (1936). Cit: Colombia. Lang. Spanish, English. Acad Degrees: Ing Agron, Palmira, Colombia (1958); BS Universidad Agraria-Lima, Peru (1962); MSc Cornell (1969). Spec: Plant breeding, agronomy; rice, sugarcane, cotton, soybeans, maize, beans, pastures, coffee; plant breeding, diseases and insect control. Exper: Rice Research Asst (1959-62); Assoc Professor (1960-66); Sugarcane, Cotton and Pasture Research Officer (1963-67); Regional Rice Research and Extension Officer (1969-72); Assoc Professor (1969-72). Title: Technical Chairman of Colombian Rice Growers. Address: Federacion Nacional de Arroceros de Colombia, Carrera and No. 13-58 Piso 10, Bogota, COLOMBIA.

GOODING, E. Graham Beaujon (1915). Cit: Barbados, U.K. Lang: English. Acad Degrees: BA (1938) and MA (1942) Cambridge; FI (DSc) Inst Biology, U.K. (1969). Spec: Botany; tropical root crops, yams, bananas; agronomic practices, food processing. Exper: Teaching (1938-43); rubber research (Botanist) in Malaya (1946-50); U.K. Ministry of Food -- experimental factory director (1950-61); Director (Latin America) of Natural Raw Materials, Knorr Products, Colombia (1961-64); Head of Diversification Section, Barbados Sugar Producers' Assoc (1964-71); Food Production Officer, Caribbean Development Bank (1971-74). Title: Food Production Officer. Address: Caribbean Development Bank, P.O. Box 408, Bridgetown, BARBADOS, W.I.

GORREZ, Francisco D., Jr. (1932). Cit: Philippines. Lang: Filipino, English. Acad Degree: BSc Philippines (1955). Spec: Agronomy; rice, maize, sorghum, soybeans; crop production, multiple cropping, agricultural aircraft, rice extension, irrigation management and training programs. Exper: Asst Rice Production Specialist, IRRI; traveled to several Asian countries to conduct rice production training, agric aircraft training, applied research and water management (1965-69); graduate study Univ of the Philippines (1969-71); Rice Specialist; Head, Agronomy Dept and Board Director, Guadalcanal Plains Limited, British Solomon Islands Protectorate (1971-74). Title: Rice Specialist. Address: Univ of Philippines, Dilliman, Quezon City, PHILIPPINES.

GRAY, David H. (1936). Cit: U.K. Lang: English, Portuguese, French. Acad Degrees: BA Cambridge (1961); MA Cambridge (1964). Spec: Botany, zoology; cereals, soybeans, forages, groundnuts; seed production of tropical and subtropical crops. Exper: Commercial seed (1961-67); Seeds Officer, Zambia, production, certification, quality control (1967-74). Address: Universal Plant Breeding Services, P.O. Box 50, Caistor, Lancs., ENGLAND.

GREWAL, Jawand Singh (1928). Cit: India. Lang: Punjabi, Urdu, Hindi, English. Acad Degrees: BSc Punjab (1947); MSc Agra (1950); PhD Allahabad (1955). Spec: Mycology, plant pathology; chickpeas, pigeon peas, green gram, black gram, cowpeas, peas, lentils, wheat; plant resistance, fungicides. Exper: Research Asst, fungicides (1955-58); Asst Plant Pathologist, fungicides (1958-64); Plant Pathologist, seed testing (1964-65); Plant Pathologist, grain legumes 1965-present); published 42 research papers. Title: Plant Pathologist and Principal Investigator. Address: Division of Mycology and Plant Pathology, Indian Agric Research Institute (IARI), New Delhi 110012, INDIA.

GROBMAN, Alexander (1927). Cit: Peru. Lang: Spanish, English, Portuguese, German. Acad Degrees: BSc Ohio (1948); PhD Harvard (1961). Spec: Genetics, plant breeding; maize, sorghum, forages, oil crops; national and international crop promotion. Exper: Head, Cooperative Maize Research Program (1951-61); Director of Agric Research, Ministry of Agric (1961-66); Univ Professor (1961-67); Director, Research and Development (1966-74). Title: Director, Research and Development for Latin America. Address: Northrup, Ing & Company, Avda Arequipa 340, Oficina 601, Lima, PERU.

GROSZMANN, Americo (1917). Cit: Brazil. Lang: Portuguese, English, Hungarian, German. Acad Degrees: BSc Univ Federal Vicosa (1942); MSc Iowa State (1946); PhD Iowa State (1947). Spec: Genetics, plant breeding; guarana, peppers, maize, soybeans, cotton, field beans; hybrid vigor. Title: Research Assoc. Address: CEPLAC, Caixa Postal 7, Itabuna, Bahia, BRAZIL.

GUAN-SOON, Lim (1941). Cit: Malaysia. Lang: Bahasa, Malayan, English, Chinese. Adad Degrees: BSc Univ of Malaya (1966); MSc London (1972). Spec: Zoology, applied entomology; groundnuts, vegetables, rice, stored products; integrated pest control.

Exper: Entomologist, oil palm and coconut (1966); Entomologist, rice (1967-71); Leader, Rice Seed Section (1971); Head, Pest Control Branch (1972-present); several conferences in Asia and Africa. Title: Head, Pest Control Branch. Address: Malaysian Agric Research and Development Institute (MARDI), P.O. Box 208, Sungai Besi, Serdang, Selangor, MALAYSIA.

GUAZZELLI, Ricardo J. (1925). Cit: Brazil. Lang: Portuguese, English. Acad Degrees: BSc Vicose (1946); MSc ESALQ (1974). Spec: Genetics, plant breeding; field beans, rice, soybeans, breeding for quality, disease resistance, competition in field beans. Exper: Chief, Experiment Station (1948-64); Coordinator, National Bean Commission (1964-72); Chief, Experiment Station, Uberaba (1969-72); Professor of Botany at Patos and Uberaba; currently doing graduate work at ESALQ; 5 conferences in Brazil; travel to U.S.A., Mexico, Costa Rica, Colombia. Title: Graduate Student. Address: Estacao Experimental de Uberaba, C.P. 57, 38.100 Uberaba, M.G., BRAZIL.

GULL, Dwain D. (1923). Cit: U.S.A. Lang: English, Spanish. Acad Degrees: BSc Utah State (1955); MSc Cornell (1957); PhD Cornell (1960). Spec: Postharvest horticultural physiology; vegetables; quality maintenance, human nutrition, composition of plants. Exper: Research Asst, potatoes, onions, corn (1955-60); Asst and Assoc Professor, research on quality maintenance of potatoes, maize, tropical root crops and packinghouse operation; teaching and extension; director of graduate research; numerous conferences in U.S.A. and tropical countries (1960-present); AID contract participation in Guyana and Central America. Title: Assoc Professor/Chief of Party. Address: Dept of Vegetable Crops, Univ of Florida, Gainesville, Florida, U.S.A.

GUNASENA, Herath P. (1937). Cit: Sri Lanka. Lang: Sinhala, English. Acad Degrees: BSc Sri Lanka (1961); PhD Reading (1969). Spec: Agronomy; rice, maize, sorghum, groundnuts, soybeans, mung beans, black gram; fertilizer use, plant spacing, herbicide use, variations in yield. Exper: Lecturer in Crop Science (1962-present); supervision of 10 graduate students; member, Soybean Research Committee; Research Committee of the Faculty of Agric. Title: Lecturer, Crop Science. Address: Faculty of Agric, Univ of Sri Lanka, Peradeniya, SRI LANKA.

GUNAWARDENA, Irwin E. (1932). Cit: Sri Lanka. Lang: Sinhalese, English, Tamil. Acad Degrees: BSc Ceylon (1955); MSc Texas A&M (1963); PhD California (1966). Spec: Plant physiology, biochemistry, genetics; rice, sugarcane, vegetable crops, spice crops; breeding high-yielding rice varieties and physiological investigations, sugarcane agronomy. Exper: Asst Botanist (1956-61); Plant Physiologist (1961-67); Botanist (1967-present). Title: Botanist and Head of Botany Division. Address: Division of Botany, Central Agric Research Institute, Peradeniya, SRI LANKA.

GUZMAN, Edgar (1946). Cit: Colombia. Lang: Spanish. Acad Degree: Ing Agr Colombia (1970). Spec: Grain legumes, cowpeas; production. Exper: Grain legume investigation, regional trials (1971-present). Title: Asst in Grain Legume Program. Address: Instituto Colombiano Agropecuario, Aptdo Aereo 233, Palmira (valle) COLOMBIA.

HADJICHRISTODOULOU, Andreas (1928). Cit: Cyprus. Lang: Greek, English. Acad Degrees: BSc Salonica (1962); MSc California (1966); PhD California (1967). Spec: Plant breeding; wheat, barley, vetches, legumes; yield, diseases, protein quality and quantity. Exper: Mutation breeding, Rome (1969); visit to Giza, Egypt (1971); conferences in Asia, Europe and Africa. Title: Officer in charge of Agronomy Section. Address: Agric Research Institute, Nicosia, CYPRUS.

HAFEZ, Mostafa (1916). Cit: Egypt. Lang: Arabic, English. Acad Degrees: BSc Cairo (1936); MSc Cairo (1952); PhD Wageningen (1961). Spec: Entomology; maize, cotton, citrus; biological and integrated control of agric pests and weeds. Exper: Junior Entomologist (1936-44); Senior and Principal Entomologist (1944-72); Director, Plant Protection Institute (1972-present); meetings in U.S.A., Central America, Europe, Africa, Near East, Asia and FAO/Rome. Title: Director. Address: Institute of Plant Protection, Ministry of Agric, Dokki, Cairo, EGYPT.

HAIZEL, Kwesi A. (1931). Cit: Ghana. Lang: Fanti, English. Acad Degrees: BSc Ghana (1956); DTA Trinidad (1958); PhD Wales (1969). Spec: Crop ecology, weed control, cowpeas, maize, cassava; population ecology, mixed cropping, weed control. Exper: Research Officer in charge of agric research and extension stations, Ghana (1962-67); Lecturer in Crop Science (1967-69); presently, Head, Crop Science Division, Faculty of Agric. Title: Senior Lecturer. Address: Dept of Crop Science, Univ of Ghana, Legon, GHANA.

HAKIM, Rusli (19). Cit: Indonesia. Lang: (Not indicated). Acad Degree: PhD Philippines. Spec: Corn breeding. Title: Assoc Director. Address: Central Research Institute for Agric, Jalan Merdeka 99, Borgor, West Java, INDONESIA.

HALL, David W. (1924). Cit: Scotland (U.K.). Lang: English. Acad Degrees: BSc St. Andrews (1945); BSc (hons) St. Andrews (1948); PhD St. Andrews (1956). Spec: Entomology; cereals, legumes; post-harvest problems of handling and storage. Exper: Food Inspector (1945-47); Lecturer (1948-51); Research and Scientific Administrator (1953-74); Head, Overseas Liaison Dept, Pest Infestation Laboratory (1959-63); Director TSPC (1963-69); Head, Overseas Operations Secretariat (1969-72); travel in Africa and Caribbean. Title: Environment Coordinator. Address: Overseas Development Administration, Eland House, Stag Place, London, SW 1 E 5DH, UNITED KINGDOM.

HALL, William E. (1922). Cit: U.S.A. Lang: English, French. Acad Degrees: BSc Oregon State (1947); MSc Oregon State (1953); PhD Michigan State (1969). Spec: Agronomy, botany; wheat, barley; agronomy, plant breeding, seed certification. Exper: Research Asst, wheat, barley, oat breeding (1947-53); Asst Professor, Agronomic Research (1954-63); Manager, Michigan Crop Improvement Association (1964-69); Agronomic Research Advisor, CIMMYT/USAID Morocco (1969-73); Research Consultant, Development Assistance Corp, Saudi Arabia (1973-present). Title: Research Consultant. Address: Development Assistance Corporation, Box 3421, Riyadh, SAUDI ARABIA.

HAMBLIN, John (1940). Cit: U.K. Lang: English. Acad Degrees: BSc Reading (1966); PhD Adelaid Univ (1973). Spec: Agronomy, plant breeding; beans, cowpeas, barley; environment interaction, yield-protein relationship, biochemical control of nodulation. Exper: Commonwealth Scholar (1967-70); Senior Research Fellow, Cambridge (1970-present); conferences in Australia, Africa and Europe; extensive travel in Africa. Title: Senior Research Fellow. Address: Dept of Applied Biology, Univ of Cambridge, Downing Street, Cambridge, ENGLAND.

HAMMAR, Olof (1934). Cit: Sweden. Lang: Swedish, English, German, French. Acad Degree: BSc Agric College of Sweden (1962). Spec: Soil cultivation, agronomy; soybeans, wheat, maize; yield and cultural practices, breeding. Exper: Research Asst, Soil Cultivation (1960-62); Teacher, Agric College (1962-68); Administrator, Teacher's Training Institute (1969); Extension Officer, Crop Protection (1969-present); Agronomist and Head, Experimentation Dept, Chilala Agric Unit, Addis Ababa. Title: Lantbrukskonsulent (Extension Officer, Crop Production). Address: Lantbruksnamnden, Fack 701 01, Orebro, SWEDEN.

HAMMERTON, John L. (1934). Cit: U.K. Lang: English. Acad Degrees: BSc Reading (1956); PhD Wales (1959). Spec: Weed science, agronomy; groundnuts, soybeans, pigeon peas, cowpeas, vegetables; weed control, crop physiology. Exper: Lecturer in crop production, Wales (1959-68); Lecturer, U.W.I. (1969); Research Fellow (1970-72); Senior Research Fellow, Agronomy (1972-present); Visiting Professor of Agric, Sweden (1966); FAO Weed Specialist, Panama (1967). Title: Senior Research Fellow. Address: Faculty of Agric, Univ of the West Indies, P.O. Box 113, Mona, Kingston 7, JAMAICA.

HAQUE, Syed Qayamul (1934). Cit: India. Lang: Hindi, English, Urdu. Acad Degrees: BSc Bihar (1954); MSc Bihar (1959); PhD IARI (1963). Spec: Plant virology; cowpeas, papaya, yams; transmission of plant viruses. Exper: Extension Officer, India (1954-57); Research Asst, India (1957-63); Plant Pathologist, India (1963-66); Virologist, UWI (1970-present); research on virus diseases, particularly grain legume and root crops; teaching; supervision of graduate research; training of extension officers. Title: Virologist. Address: Univ of the West Indies (UWI), St. Augustine, TRINIDAD, W. I.

HARDAS, Mukund Waman (1923). Cit: India. Lang: Marathi, Hindi, English. Acad Degrees: BSc Nagpur Univ (1945); MSc Nagpur (1946). Spec: Plant introduction, cytogenetics and breeding; oats, peaches; plant introduction service. Exper: Lecturer in Botany (1945-47); Research Fellow, wheat (1949-51); Research Asst, wheat, okra (1951-55); Asst Cytogeneticist, wheat, cotton (1955-60); Asst Professor, botany (1960-63); Plant Introduction Officer (1963-present); traveled to U.S.A. as FAO Fellow trainee for plant introduction (1969). Title: Senior Plant Introduction Officer. Address: Division of Plant Introduction, Indian Agric Research Institute (IARI), New Delhi-12, INDIA.

HARKNESS, Colin (1933). Cit: U.K. Lang: English, Hausa. Acad Degrees: BSc Birmingham (1953); Dip Agric Sci, Cambridge (1954); Dip Tropical Agric Trinidad (1955). Spec: Plant breeding; groundnuts; plant breeding, plant physiology. Exper: Groundnut research in Nigeria. Title: Principal Research Fellow. Address: Institute for Agric Research, PMB 1044, Zaria, NIGERIA.

HARRAR, Jacob G. (1906). Cit: U.S.A. Lang: English, Spanish. Acad Degrees: AB Oberlin College (1928); MS Iowa State (1929); PhD Minnesota (1935). Spec: Biology, plant pathology. Exper: Professor of Biology, Puerto Rico (1929-33); Instructor of Plant Pathology, Minnesota (1934-35); Professor of Biology, V.P.I. (1935-41); Professor and Head, Plant Pathology Dept, Washington State (1941-42); Director of Mexican Agric Program, Rockefeller Foundation (1943-59); Vice-President (1959-61); President and Trustee (1961-72); author of 60 research papers in pytopathology and mycology. Title: President Emeritus, The Rockefeller Foundation. Address: 1133 Avenue of the Americas, New York, New York 10036, U.S.A.

HARTWIG, Edgar E. (1913): Cit: U.S.A. Lang: English. Acad Degrees: BS Minnesota (1937); MS Illinois (1939); PhD Illinois (1941). Spec: Agronomy, plant breeding, palnt pathology; soybeans: soybean improvement through breeding and management practices, pest resistance, improved protein content. Exper: Sweet Clover Breeding Research (1941-42); Asst Agronomist-Pathologist, Agric Experiment Station (1942-43); soybean research (1943-present); attended seven conferences on soybeans in Brazil, Colombia, Sweden and India. Title: Research Leader, Soybean Production Research. Address: Delta Branch Experiment Station, Stoneville, Mississippi 38776, U.S.A.

HASANUZZAMAN, Shah Muhammad (1925). Cit: Bangladesh. Lang: Bengali, English. Acad Degrees: BAgr Dacca (1945); MSc Arkansas (1956); PhD Texas A&M (1959). Spec: Plant breeding, genetics; rice, other cereals; cold tolerance, drought, disease resistance, salinity, flood resistance in rice. Exper: Breeding rice for flood tolerance and higher yield (1948-60); reorganization of breeding program on pulses and oilseeds (1960-65); breeding wheat and maize (1965-69); breeding rice (1969-present); Examiner of Genetics and Plant Breeding, Universities of Dacca, Mymensingh, and Rajshahi; Chairman, Cereals and Pulse Products Committee, Standard Institute of Bangladesh; 6 international conferences. Title: Assoc Director. Address: Bangladesh Rice Research Institute, Joydebpur, Dacca, BANGLADESH.

HAYNES, Patrick H. (1931). Cit: Barbados. Lang: English. Acad Degrees: B Agr Belfast (1958); M Agr Belfast (1970). Spec: Agronomy; tropical root and field crops; carbohydrate production and utilization. Exper: Research officer, Barbados (1958-62); lecturer in crop production, Univ of West Indies (1962-present); seconded to FAO in Fiji as Root Crop Agronomist (1973-present); 8 international conferences. Title: Agronomist. Address: Koronivia Research Station, Nausori, FIJI.

HEIDRICH-SOBRINHO, Edmundo (1925). Cit: Brazil. Lang: Portuguese, English, German. Acad Degrees: BSc Universidade Federal de Pelotas (1947); MSc Iowa State (1958); PhD Universidade Federal (1974). Spec: Agronomy, genetics; maize, wheat; protein quantity and quality, heterosis. Exper: Research Asst, wheat (1950-54); Research Officer in charge of maize (1954-present); Assoc Professor (1958-present), Head of Plant Science (1963-67), Director of Research, Plant breeding Institute (1968-69); 12 interntional

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conferences. Title: Assoc Professor in Genetics. Address: Departamento de Genetica IB UFRGS, Caixa Postal 1953, Porto Alegre, RS BRAZIL.

HENDERSON, Keith (1939). Cit: U.S.A. Lang: English. Acad Degrees: BSc Colorado State (1961); MSc Colorado State (1963); PhD Arizona (1969). Spec: Agronomy, botany; wheat, sorghum, alfalfa, citrus; wheat production and agronomic practices on other field crops. Exper: Research Asst, sorghum (1961-63); Research Asst, forage crops (1965-69); Seedsman, Great Western Sugar Company (1969-71); Cereal Program Specialist, Ford Foundation, Saudi Arabia (1971-73). Title: Agric Development Specialist, Cereal Production Agronomist. Address: Development Assistance Corporation, Ministry of Agric and Water, P.O. Box 3421, Riyadh, SAUDI ARABIA.

HENDRICKX, Frederick (1911). Cit: Belgium. Lang: French, English, Dutch, German, Spanish, Kiswahili. Acad Degrees: BSc Gembloux (1934); PhD Bruxelles (1937). Spec: Agronomy, botany; sweet potatoes, beans. Exper: Director, Mulungu Experimental Research Station (1937-60). Title: Professor, Titulaire de la Chaire de Phytotechnie des Regions Chaudes. Address: Faculte des Sciences Agronomiques de l'Etat aa Gembloux, 5800 Gembloux, BELGIUM.

HERMSEN, John G. Th. (1924). Cit: Netherlands. Lang: Dutch, English, German, French. Acad Degrees: BSc Wageningen (1949); MSc Wageningen (1953); PhD Wageningen (1962). Spec: Plant breeding; potatoes, wheat; interspecific and intergeneric hybridization, polyploidy, incompatibility. Exper: Research Officer, wheat (1954-63); wheat and potato breeding, U.S.A. (1964); Principal Research Officer, potatoes (1965-71); Asst Professor, plant breeding (1971-present); many conferences in Europe, U.S.A., Japan, Peru, Canada; collecting expedition Solanum species, South America Andes (1974); President, Potato Section EUCARIPA. Title: Asst Professor, Plant Breeding. Address: Agric Univ, Dept of Plant Breeding, Wageningen, THE NETHERLANDS.

HERNANDEZ, Jose (1932). Cit: Peru. Lang: Spanish, Italian. Acad Degree: Ing Agron La Molina (1956). Spec: Agronomy; rice; studies of resistance to blast in rice. Exper: Asst Supervisor, Agric Research (1959-64); Supervisor, Agric Research (1964-69); Coordinator, National Rice Program (1969-present); Head, Agric Experimental Station, Vista Florida (1973-present). Title: Head. Address: Estacion Experimental Agraria de Vista Florida, Casilla 116, Chiclayo, PERU.

HERRERA, Carlos V. (1932). Cit: Peru. Lang: Spanish, English. Acad Degrees: Ing Agr Agrentina (1957). MSc Mississippi State (1968). Spec: Agronomy; maize, sorghum, vegetables; seed production and technology. Exper: Production of barley for brewing, 7 yrs; seed production of small grain with Ministry of Agric, 9 yrs; Professor at Univ, 5 yrs; Chief, Dept of Seed Technology, Experiment Station La Molina, 3 yrs. Title: Chief, Production and Seed Processing Plant Hortus S.A. Address: Avenida Espana No. 256 Lima, PERU.

HESEN, Jan C. (1930). Cit: Netherlands. Lang: Dutch, English, German, French. Acad Degree: Ir Wageningen (1956). Spec: Agronomy, food technology; potatoes and other field crops; storage and processing of potatoes. Exper: Research on storage and processing of potatoes; consultation with and extension advice to potato merchants and the processing industry in many countries of the world; 20-30 conferences in European countries, several in the U.S.A. and Canada. Title: Research Officer. Address: Institute for Storage and Processing of Agric Produce (IBVL), Wageningen, THE NETHERLANDS.

HEU, Mun-Hue (1927). Cit: Korea. Lang: Korean, Japanese, English. Acad Degrees: BSc Seoul (1954); MSc Seoul (1957); PhD Seoul (1968). Spec: Plant breeding, cytogenetics; rice, soybeans, cotton, wheat. Exper: Research on cotton and soybean (1954-60); Plant Breeder (1960-present); Research Fellow at IRRI (1964-66); Texas A&M training (1959-60); participated in 7 conferences at IRRI and ASPAC. Title: Assoc Professor and Head of Dept. Address: Department of Agronomy, College of Agric, Suweon, KOREA.

HO, Ban Lee (1944). Cit: Malaysia. Lang: Malay, English, Mandarin. Acad Degree: BSc Univ of Malaya (1971). Spec: Plant pathology, nematology; rice, oil palm, tobacco, tomatoes, groundnuts, ginger; epidemiology, control measures, yield loss studies and breeding for disease resistance. Exper: Research Demonstrator, College of Agric (1971); Research Asst, Univ of Malaya (1971); Research Plant Pathologist (1971-present). Title: Plant Pathologist. Address: Rice Research Centre, MARDI, K. Batas, Penang, MALAYSIA.

HOA, Tran Van (1940). Cit: Vietnam. Lang: Vietnamese, English. Acad Degrees: BSc National Agric Center, Saigon (1968); MSc Univ Philippines (1974). Spec: Crop physiology; soybeans, peanuts, corn, sorghum; oil crop production. Exper: Instructor in

Agronomy. Title: Experimental Farm Manager. Address: Faculty of Agric, Univ Cantho, Cantho, SOUTH VIETNAM.

HODSON, Michael J. (1948). Cit: U.K. Lang: English, French, German, Swahili. Acad Degree: BSc Newcastle, England (1970). Spec: Entomology, crop production; maize, grassland, lucerne, potatoes; assessment of insect damage to crops, developing control techniques and application criteria. Exper: Trials Officer (Industry-Private Sector) Pesticide Screening (1970-71); Asst Experimental Officer, Saudi Arabia, on Desert Locust and Cyprus Armyworm (1972); Scientific Officer to Maize Agronomy Project, Kitale (1972-present). Title: Entomologist, National Agric Research Station, Kitale, Kenya. Address: Center for Overseas Pest Research, College House Wrights Lane, London, W8 5SJ, ENGLAND.

HSIEH, Shih-pan-yu (1936). Cit: Republic of China. Lang: Chinese, English, Japanese. Acad Degrees: BSc Taiwan (1960); MSc Philippines (1967); PhD Hawaii (1973) Spec: Plant pathology, bacteriology; rice; ecology of rice pathogens, epidemiology of rice diseases, varietal resistance. Exper: Teaching Asst (1961-64); Instructor (1966-73); Assoc Professor (1973-present); National Chung-hsing Univ Scholar (1964-66); Fellow (1972); IRRI Fellow, Shizuoka Univ, Japan (1971); Fellowship, National Science Council, China (1970-72); Fellowship, Foreign Area Fellowship Program (1972-73); 7 conferences in Asia and U.S.A. Title: Assoc Professor, Dept of Plant Pathology, and Senior Specialist, Taiwan Plant Protection Center. Address: National Chung-hsing Univ, Taichung 400, Taiwan, REPUBLIC OF CHINA.

HU, Chao-Hwa (1924). Cit: Republic of China. Lang: Chinese, Japanese, English. Acad Degree: Dr Agric Hokkaido (1961). Spec: Genetics; rice; chromosome morphology, mutation breeding, specific hybrids and genomic differentiation, trisomics, breeding of short stature rice. Exper: Dean, Research Institute of Food Crops, and Head, Dept of Agronomy, National Chung-hsing Univ (1969-71); participant, Symposium on Rice Genetics and Cytogenetics at IRRI, Philippines (1963); international meetings and congresses in the U.S.A., Tokyo, Taiwan, Philippines. Title: Professor of Agronomy. Address: National Chung-hsing Univ, Taichung, Taiwan, REPUBLIC OF CHINA.

HUOR, Huon C. (1939). Cit: Khmer Republic (Cambodia). Lang: Cambodian, English, French. Acad Degree: BSc Mississippi (1964). Spec: Seed production and seed technology; field crops, fruits, vegetables; agric development and planning. Exper: Deputy Director, Agric Research Center (1964-67); Chief, Provincial Dept of Agric (1967-70); United Nations Economic Commission for Asia and the Far East (ECAFE), Mekong Secretariat Regional Office, Phnom Penh (1970-73), ECAFE Division of Economic and Social Studies (1974-present); Seminar on Amplified Mekong Basin Plan. Title: Rural Development Planner and Project Analyst. Address: Mekong Committee, ESCAP, Sala Santitham, Bangkok 2, THAILAND.

HUSAIN, Manzoor (1926). Cit: Pakistan. Lang: Urdu, English, Spanish. Acad Degree: BSc Osmania Univ (1951). Spec: Agronomy; wheat, millet; improvement and production of wheat. Exper: Research Asst, wheat (1955-68); Asst Botanist, millet (1969-present); Economic Botanist, Agric Research Station, (1973-present); Diploma, CIMMYT (1968). Title: Economic Botanist and Asst Botanist, Millet. Address: Agric Research Station, Bahawalpur, PAKISTAN.

HUXLEY, Peter A. (1926). Cit: U.K. Lang: English. Acad Degrees: BSc Reading (1954); PhD Reading (1962). Spec: Crop physiology, horticulture, tropical agric; cowpeas, soybeans, other grain legumes, tropical fruits; physiology of tropical grain legumes, intensive orchard systems. Exper: Senior Lecturer, Makerere Univ (1954-64); coffee research, Kenya (1965-69); Director of Research, Reading (1969-present); joint program with IITA. Title: Professor of Horticulture. Address: Dept of Agriculture and Horticulture, Reading Univ, Earley Gate, Reading, ENGLAND.

HUYNH, Nauyen Van (1944). Cit: Vietnam. Lang: Vietnamese, English. Acad Degrees: BSc National Agric Institute, Saigon (1968); MSc Univ Philippines, Los Banos (1974). Spec: Entomology, insecticides; rice, corn, vegetables; insecticides, insect resistance of crop plants. Exper: Teaching (from 1968); special training in research on insect pests of rice at the IRRI, Los Banos. Title: Research Asst and Lecturer. Address: Faculty of Agric, Univ of Cantho, Cantho, SOUTH VIETNAM.

HUYNH, Quang Van (1947). Cit: Vietnam. Lang: Vietnamese, English, French. Acad Degree: BSc National Institute of Agric (1970). Spec: Agronomy; rice; varietal improvement and fertilizer use on rice. Exper: Controller, Land Reform Program (1971-72); Research Asst, rice (1972-73); Manager, National Crops Research Center (1973-present); attended IRRI International Conference (1974). Title: Manager. Address: National Crops Research Center, P.O. Box 52, My Tho, Dinh Tuong, SOUTH VIETNAM.

HYMOWITZ, Theodore (1934). Cit: U.S.A. Lang: English. Acad Degrees: BSc Cornell

(1955); MSc Arizona (1957); PhD Oklahoma State (1963). Spec: Genetics, chemistry; soybeans, guar; genetics of protein and oil quantity and quality, germplasm resources, crop evolution. Exper: Soybean Specialist, Brazil (1964-66); U.S. National Academy of Science Exchange Professor, Romania (1969); FAO soybean consultant, Yugoslavia, Hungary (1973); USAID soybean consultant, Bangladesh (1974). Title: Assoc Professor, Plant Genetics. Address: Dept of Agronomy, Univ of Illinois, Urbana, Illinois 61801, U.S.A.

HYUN, Jai Sun (1926). Cit: Korea. Lang: Korean, Japanese, English. Acad Degrees: MSc Song Kyung-Kwan Univ, Seoul (1958); MSc Minnesota (1960); Dr in Agronomy (1968). Spec: Entomology; rice; stored grains, population dynamics of insect pests. Exper: Meetings on use of sterile male technique for the control or eradication of insect pests - Vienna (1968), Bangkok (1969), Tokyo (1971); Chief of Agric Library, Seoul National Univ; Consultant to Dept of Forestry, Office of Rural Development, Office of Korean Atomic Energy Agency; President, the Korean Society of Plant Protection. Title: Professor in Insect Ecology. Address: Dept of Agric Biology, College of Agric, Seoul National Univ, Suwon, SOUTH KOREA.

ILAG, Lina Luna (1938). Cit: Philippines. Lang: Filipino, English. Acad Degrees: BSc Philippines (1960); MSc Hawaii (1963); PhD Purdue (1970). Spec: Plant pathology, microbiology; maize, peanuts, rice, sorghum, vegetables; mycotoxins, market and storage disease. Exper: Asst Instructor (1960-63); Instructor (1963-70); Research Fellow (1966-69); Asst Professor in plant pathology (1970-present); author of several scientific articles on plant pathology. Title: Asst Professor. Address: Dept of Plant Pathology, College of Agric, Univ of the Philippines at Lost Banos, College, Laguna, PHILIPPINES.

INGRAM, William Rex (1930). Cit: U.K. Lang: English, Swahili, French. Acad Degrees: BSc Cape Town (1950); DIC Imperial College (1954). Spec: Entomology, botany; sorghum, maize, cowpeas, pigeon peas, groundnuts, sweet potatoes; economic entomology. Exper: Asst Entomologist, Coffee Research Station, Kenya (1951-53) and Uganda (1954-67); Cereals and Cotton Entomologist, Serere Experiment Station (1954059); Coffee Entomologist, Coffee Research Laboratories (1959); Agric Entomologist (1959-63); Senior Entomologist, Kawanda Research Station (1963-67); general entomological work in Botswana, Cyprus, the Caribbean, Center for Overseas Pest Research (1967-present). Title: Principal Scientific Officer. Address: Centre for Overseas Pest Research, College House, Wrights Lane, London W8 5SJ, ENGLAND.

IRUEGAS-EVARISTO, Andres (1939). Cit: Mexico. Lang: Spanish, English. Acad Degrees: BSc Escuela Nacional de Agric (1962); MSc North Dakota State (1969); PhD North Dakota State (1973). Spec: Plant breeding, cereal technology; wheat, maize, barley, oats, rice; breeding for nutritional and industrial quality of cereals. Exper: Plant breeding for protein quantity and quality in oats, barley, wheat, and corn; teaching cereal technology. Title: Coordinator of Cereal Dept Laboratories. Address: Instituto Nacional de Investigaciones Agricolas, Aptdo Postal 6-882, Mexico 6, D. F. MEXICO.

ISHIZUKA, Yoshiaki (1907). Cit: Japan. Lang: Japanese, English. Acad Degrees: BSc Hokkaido Univ (1929); Dr Agr Hokkaido (1945). Spec: Soil science, plant nutrition; rice, wheat, sugar beets, mint; nutritional physiology of the rice plant. Exper: Professor at Hokkaido Univ (1945-70); Dean, Faculty of Agric (1967-69); Emeritus Professor, Hokkaido Univ (1970-present); Trustee IRRI (1964-68). Title: Director. Address: Food and Fertilizer Technology Center, Asian and Pacific Council, 4th Foor 116 Huai Ning Street, Taipei, Taiwan, REPUBLIC OF CHINA.

ISLAM, Muhammad Amirul (1918). Cit: Bangladesh. Lang: Bengali, English. Acad Degrees: BSc Dacca (1941); MSc Dacca (1942); PhD.California (1949). Spec: Soil science; rice, wheat, sugarcane, jute; soil fertility and plant nutrition. Exper: Agric Chemist (1950-62); Director of Soil Survey (1962-66); Director-General, Soil Survey of Pakistan (1966-67); Director of Agric, Bangladesh (1967-70); Director, Bangladesh Rice Research Institute (1970-71); Vice-Chancellor, Bangladesh Agric Univ (1971-72); Director, Bangladesh Rice Research Institue (1972-present); on special duty with Ministry of Agric (1972-73); conferences in Turkey, Iran, Pakistan, Philippines; more than 40 publications. Title: Director. Address: Bangladesh Rice Research Institute G.P.O. Box No. 911, Dacca, BANGLADESH.

IWATA, Yoshito (1910). Cit: Japan. Lang: Japanese, English. Acad Degrees" BSc Tokyo (1937); MSc Tokyo (1939); PhD Tokyo (1961). Spec: Plant pathology; rice, maize, legumes, ecology, control of plant diseases. Exper: Professor, National Mie Univ (1939-54); Director, Dept of Plant Pathology and Entomology, National Institute of Agricultural Sciences (1965-70); President, Phytopathological Society of Japan (1970). Title: Team Leader, Japan-Indonesia Joint Food Crop Research Program. Address: Central Research Institute for Agric, Jalan Merdeka 99, Bogor, INDONESIA.

JACKSON, Robert I. (1919). Cit: U.S.A. Lang: English, Indonesian. Acad Degrees: BSc Chicago (1942); PhD Cornell (1950). Spec: Plant breeding, plant pathology, agronomy; rice, kenaf, maize; administration of agric development programs. Exper: Assoc Professor of Plant Breeding and Genetics (1950-51); Corn Breeder (1951-58); Agronomist (1959-66); Food and Agric Officer (AID) (1966-70); Representative IRRI (1970-present); attended special courses in economic development and post doctoral in agric economic development programs. Title: Representative, IRRI. Address: Central Research Institute for Agriculture Jl, Merdeka 99, Bogor, INDONESIA.

JAFFE, Werner G. (1914). Cit: Venezuela. Lang: Spanish, German, English. Acad Degrees: PhD Zurich (1939); DSc Caracas (1953). Spec: Biochemistry, nutrition; beans, soybeans, maize; plant proteins. Exper: Food industry (1940-46); Professor of Biochemistry (1948-58); Professor of Nutrition (1958-present). Title: Professor of Nutrition and Head of Department of Food Science. Address: Instituto Nacional de Nutricion, Aptdo 2049, Caracas, VENEZUELA.

JAIN, Hari Krishan (1930). Cit: India. Lang: Hindi, English. Acad Degrees: BSc (Hons) Delhi Univ (1949); MSc Indian Agric Research Institute (1951); PhD Wales (1955). Spec: Genetics, plant breeding; peas, chickpeas, wheat, cotton; genetics and plant breeding, research, teaching, administration. Exper: Leading one of the largest research groups in the field of crop improvement at IARI. Rafi Ahmed Kidwai Award of the Indian Council of Agric Research; Nehru Fellowship award. Title: Head, Division of Genetics, IARI, Address: Indian Agric Research Institute, New Delhi-12, INDIA.

JALALYAR, Mir Sadam (1939). Cit: Afghanistan. Lang: Pushtoo and Dari, English, (Spanish). Acad Degrees: BSc Kabul Univ (1961); MSc Washington State (1970); PhD Washington State (1974). Spec: Genetics and plant breeding; soybeans; crop improvement, breeding. Exper: Research and extension. Title: Head, Crop Improvement Division. Address: Dept of Research and Soils, Ministry of Agric and Irrigation, Kabul, AFGHANISTAN.

JENNINGS, Derek L. (1929). Cit: U.K. Lang: English, Kiswahili. Acad Degrees: BSc Univ of Wales (1950); PhD St. Andrews (1964). Spec: Plant breeding, genetics; cassava, rubus fruits, sorghum, groundnuts; breeding, resistance to virus diseases, interspecific crossing, germplasm conservation. Exper: Plant Breeder in charge of cassava breeding, EAAFRO, Tanzania (1950-57); Plant Breeder in charge of soft fruit breeding; U.K. (1957-present). Title: Team leader for soft fruit breeding. Address: Scottish Horticultural Research Institute, Invergowrie, Dundee, U.K. DD2 5 DA UNITED KINGDOM.

JERATH, Manohar Lal (1930). Cit: India Lang: Punjabi, Hindi, English. Acad Degrees: BSc Punjab (1952); MSc Punjab (1953); PhD Oregon State (1958). Spec: Entomology, zoology; maize, rice, cowpeas, yams; insect pests and their control, breeding for resistance to insects. Exper: Graduate Research Fellow (1956-58); Insect Physiologist (1958-59); Research Officer (1961-63); Senior Research Officer (1963-65); Principal Research Officer (1965-present). Title: Principal Research Officer. Address: Federal Department of Agric Research, PMB 5042, Moor Plantation, Ibadan, NIGERIA.

JESWANI, L. M. (1922). Cit: India. Lang: Sindhi, Hindi, English. Acad Degrees: BSc Bombay (1945); Assoc IARI (1953); PhD IARI (1962). Spec: Genetics, plant breeding; grain legumes, oilseeds; research and development of grain legume crops. Exper: 25 yrs research experience in breeding and genetics of crop plants, grain legumes, oilseeds, fiber crops, spices, condiments; published 60 research publications; research guidance of graduate students; organized workshop meetings and formulated grain legumes crop research and development programs. Title: Director, Small Legumes. Address: Directorate of Pulses Development, Ministry of Agric, Government of India, C-60 E. Park, Mahanagar Extension, Lucknow - 6 (U.P.) INDIA.

JETTER, Wolfgang (1932). Cit: Argentina. Lang: Spanish, German. Acad Degrees: Ing Agr, Univ Nac del Noreste (1963); MSc Esc Graduades en Ciencias Agropecuarias (1967). Spec: Agronomy; rice; fertilizers, cultural practices. Exper: Research Asst (1964-65); Investigator, rice improvement (1967-69); rice course at CIAT (1970); rice research (1971-74). Title: Rice Investigator. Address: Estacion Experimental Regional Agropecuaria, INTA, Casilla 57, Corrientes, ARGENTINA.

JIMINEZ-SANCHEZ, Leobardo (1930). Cit: Mexico. Lang: Spanish, English. Acad Degrees: BSc Chapingo (1957); MSc Wisconsin (1962); PhD Wisconsin (1967). Spec: Rural development; cereals, maize, beans, rice, sorghum; production and productivity in natural rainfed agric. Exper: Research Asst, communications, Head of Extension Service in Tropical Areas of Mexico (1958-60); research, communications, and Secretary of the Graduate College, Chapingo (1963-65); Research Professor, Graduate College and General Coordinator, Plan Puebla (CIMMYT) (1967-present). Title: Director. Address: Graduate College, Chapingo, MEXICO.

JINAHYON, Sujin Cit: Thailand. Lang: Thai, English. Acad Degrees: BSc California; MSc Iowa; PhD Iowa. Spec: Plant breeding; maize. Exper: 10 yrs research. Title: Lecturer. Address: Dept of Plant Science, Kasetsart Univ, Bangkok, THAILAND.

JONES, Rogers Ayodele D. (1938). Cit: Sierra Leone. Lang: Krio, Temne, English, French. Acad Degrees: BSc Ottawa (1965); PhD Ottawa (1969). Spec: Plant physiology, plant biochemistry; rice, peanuts, grain legumes, cassava, yams, vegetables, wheat; increasing yield, protein quantity and quality; improvement of crop storage, fertilizer use, weed control, intercropping. Exper: Research Asst, wheat (1965-69); Research Officer, plant physiologist, Rice Research (1970-present); special course on tropical monocots, Costa Rica (1965); FAO-IAEA study tour on use of isotopes and radiation in agric research, Moscow (1970); attended meetings in Canada and Africa including four international conferences. Title: Deputy Director. Address: Rice Research Station, Rokupr, SIERRA LEONE.

JOSHI, Lalit Mohan (1925). Cit: India. Lang: Hindi, Urdu, and English. Acad Degrees: BSc Univ of Allahabad (1944); MSc Univ of Agra (1947); PhD Indian Agric Research Institute, New Delhi (1965). Spec: Plant pathology; wheat, barley, sorghum; epidemiology of wheat rusts, chemical control, estimation of losses and physiologic specialization. Exper: Research Asst, wheat diseases (1947-53); Asst Plant Pathologist, Plant Pathologist and Senior Plant Pathologist of sorghum, millets and wheat (1953-present). Title: Senior Plant Pathologist and Principal Investigator of Wheat. Address: Division of Mycology and Plant Pathology, Indian Agric Research Institute, New Delhi- 110012 INDIA.

JOSHI, Narhar Vinayak (1916). Cit: India. Lang: Marathi, Hindi, Gujarati, English. Acad Degree: BSc Bombay (1938). Spec: Botany, chemistry; cotton, rice, wheat; plant breeding. Exper: Cotton breeding (1940-64); rice and wheat breeding (1964-71); rice breeding (1971-73); dryland agric research (1973-present); training in rice cultivation research in Japan (1966). Title: Chief Scientist. Address: "Mangal" 13/10, Jagnath Plot, Rajkot, Gujarat State, INDIA.

JOTWANI, Mulchand G. (1926). Cit: India. Lang: Sindhi, Hindi, Urdu, English, German. Acad Degrees: BSc Bombay (1947); MSc Indian Agric Research Institute (1950); PhD Indian Agric Research Institute (1964). Spec: Entomology; sorghum, maize, minor millets; economic entomology and insect toxicology. Exper: Demonstrator (1950-51); Locust Warning Officer (1951-53); Entomologist, seed testing (1962-65); Entomologist, millets (1965-70); Entomologist and Sorghum Project Leader (1970-present); General Secretary, Entomological Society of India (1964-71); conference in Australia (1972). Title: Entomologist and Project Leader, Sorghum. Address: Division of Entomology, Indian Agric Research Institute, New Delhi, 110012 INDIA.

JOWANA, Mohamed Z. (1937). Cit: Saudi Arabia. Lang: Arabic, English. Acad Degree: BSc Cairo (1962). Spec: Plant breeding; wheat and barley; high-yielding varieties. Exper: Wheat multiplication. Title Director, Plant Production Division. Address: Ministry of Agric and Water, Riyadh, SAUDI ARABIA.

JUAREZ, Luis Alberto. (1925). Cit: Peru. Lang: Spanish, English. Acad Degrees: BSc Peru (1949); MSc Purdue (1967). Spec: Soil fertility, agronomy; rice, wheat forages; irrigation, productivity, diffusion of experimental data. Exper: Agronomy Head at experiment station (1954-60); Chief of agric experiment sub-station (1961-72); 14 national conferences; 36 bulletins and other publications. Title: Chief of Agric Experiment Station. Address: Luna Pizarro 136, Vallecito, Arequipa, PERU.

KADRA, Nourredine (1943). Cit: Algeria Lang: Arabic, French. Acad Degree: Ing Agron. Spec: Agronomy; cereals; research and production. Exper: Planification of cereal production in Algeria. Title: Director, Cereal Project. Address: 19 Rue Khodjet El Djeld, Birmandreis, ALGERIA.

KAISER, Walter J. (1937). Cit: U.S.A. Lang: English, Spanish. Acad Degrees: BSc California (1959); PhD California (1963). Spec: Plant pathology; food legumes; food legume diseases, crop improvement, resistance breeding, plant quarantine. Exper: Research Asst, plant pathology, Univ of California (1959-63); Asst Plant Pathologist, bananas, United Fruit Co. (1963-65); Research Plant Pathologist, food legumes, USDA (1965-74); Head, Plant Quarantine Station, Kenya (1974-present). Title: Head, East African Plant Quarantine Station. Address: EAAFRO, P.O. Box 30148, Nairobi, KENYA.

KANEDA, Chukichi (1932). Cit: Japan. Lang: Japanese, English. Acad Degree: BSc Tokyo (1955). Spec: Plant breeding; rice, vetch; insect resistance, cold tolerance, lodging. Exper: Technical Official, vetch breeding, Ministry of Agric and Forestry (MAF) (1955-63); Technical Official, MAF, rice breeding (1963-68); Visiting Asst Scientist, rice breeding, IRRI (1968-72); Research Official in charge of Tropical Agric Research Center, MAF (1973-73); Head, 7th Crop Laboratory, Central Experiment Station, MAF (1973-present); 2 conferences at IRRI; travels in rice-growing areas of Asia. Title: Head, 7th Crop Laboratory (Rice Breeding). Address: Central Agric Experiment Station, Konosu, Saitama, JAPAN.

KANJANASOON, Prakob (1925). Cit: Thailand. Lang: Thai, English. Acad Degrees: BSc (Agri) Kasetsart (1949); MSc IARI New Delhi (1953); PhD Tokyo (1966). Spec: Plant pathology; rice. Exper: International Rice Commission Working Party on Rice Production and Protection in New Delhi (1961), in Manila (1964), in Kandy (1968); study tour to agric institutions in Asia, Europe and the U.S.A. (1970). Title: Deputy Director-General. Address: Dept of Agric, Ministry of Agric and Cooperatives, Bangkok 2, THAILAND.

KAVEH, Hossein (1934). Cit: Iran. Lang: Farsi, English. Acad Degrees: BSc Karaj Agric College (1957); MSc Karaj (1959); PhD North Dakota State (1968). Spec: Agronomy, plant breeding; wheat, barley; wheat breeding and agronomy. Exper: In charge of wheat and barley experimental field (1957-60); wheat breeding training course at CIMMYT (1961); in charge of wheat and barley breeding, Karaj Station (1961-65); Wheat Research Coordinator (1968-present); 10 international conferences. Title: Director of Wheat and Barley Research Project. Address: Seed and Plant Improvement Institute, Karaj, IRAN.

KAY, Theodore (1934). Cit: Canada. Lang: Taiwanese, Japanese, English, Mandarin Chinese. Acad Degrees: BSc Chung-Yuan Christian College, Taiwan (1955); MSc Waterloo, Canada (1967); B Ed Toronto (1970). Spec: Biochemistry, education; soybeans, peanuts, grain legumes; protein chemistry and nutrition, development of African food recipes from soybeans, nutrition, clinical nutrition. Exper: Teaching and Research Asst, Chemistry (1959-61, 1964-66); Clinical Chemistry (1966-67); Lecturer in Biochemistry (1971-73); Clinical Biochemist (1968-69, 1970-71). Title: Lecturer in Chemical Pathology, Faculty of Medicine. Address: Department of Chemical Pathology, Ahmadu Bello Univ Hospital, Zaria, NIGERIA.

KEARL, Bryant E. (1921). Cit: U.S.A. Lang: English. Acad Degrees: BSc Utah State (1941); MSc Wisconsin (1942); PhD Minnesota (1942). Spec: Technical journalism; rice; economics of crop production; presentation and transfer of technical information. Exper: Agric Editor, Univ of Wisconsin (1951-64); Assoc Dean, Graduate School (1964-68); Vice Chancellor (1968-70); Executive Director of Asian Interregional Programs for Agric Development Council (1970-74). Title: Professor of Agric Journalism. Address: Univ of Wisconsin, Madison, Wisconsin, U.S.A.

KERMARREC, Alain C. (1943). Cit: France. Lang: French, English, Dutch, Spanish, German. Acad Degrees: BSc Ecole Nationale Superieur Agric Montpellier (1966); MSc Montpellier (1969); PhD Montpellier (1971). Spec: Helminthology, parasitology; vegetables, food crops, graminaceae; mushroom parasitology, ecology of soil nematodes, rotations parasitology of and with helminths. Exper: Research Asst Nematology (1968-71); Director, entomology, nematology and biological control (1971-74). Title: Director of Zoology Station. Address: Institut National de la Recherche Agronomique (INRA) CRAAG-Domaine Duclos 97170-Petit-Bourg; Guadeloupe, FRENCH WEST INDIES.

KERSHEN, Ronald J. (1937). Cit: U.S.A. Lang: English. Acad Degree: BAgr Texas Tech (1959). Spec: Genetics, crop sciences; triticale. Exper: 4 yrs triticale research with Dr. B. Charles Jenkins, Salinas, California; author of "Triticale Research, 1972"; attended 4 triticale symposia. Title: Manager, Life Resources, Inc. Address: Rt. 3, Box 532, Canyon, Texas 79015, U.S.A.

KEYA, Shellemiah O. (1941). Cit: Kenya. Lang: Luo, Swahili, English. Acad Degrees: BSc Makerere (1968); MSc Cornell (1970); PhD. Cornell (1974). Spec: Soil science, soil microbiology; cowpeas, maize, clover, beans, soybeans; symbiotic N_2 fixation by grain legumes, fertilizer use. Exper: Research Asst (1968); Tutorial Fellow, Makerere (1970-72); Soil Science Lecturer (1974-present); 6 conferences in U.S.A. and Africa. Title: Asst Professor. Address: Dept of Soil Science, Univ of Nairobi, P.O. Box 30197, Nairobi, KENYA.

KHADR, Fouad Hassan (1934). Cit: Egypt. Lang: Arabic, English. Acad Degrees: BSc Cairo (1955); MSc Alexandria (1958); PhD Iowa State (1964). Spec: Crop breeding, economic botany; wheat, pearl millet, sorghum, oats, maize; crop breeding. Exper: Research Asst, wheat (1955-58); Instructor of Agronomy (1958-60); Professor of Crop Science (1964-72); Senior Research Fellow at Ahmadu Bello Univ, Nigeria, on improvement of millet and coordinator of cereal crops for the 6 Northern Nigerian States; Officer in charge of Agric Research Station in Nigeria for 1 yr. Title: Millet Breeder and Coordinator of the Cereal Crops; Senior Research Fellow. Address: P.O. Box 1062, Kano, NIGERIA.

KHALSA, Mohinder Singh (1925). Cit: India. Lang: Punjabi, Urdu, Hindi, English, German. Acad Degrees: BSc Punjab (1944); BSc Agr Punjab (1946); MSc Agra (1950); PhD Illinois (1973). Spec: Entomology, environmental biology; soybeans, sugarcane, rice, wheat and temperate fruit; host plant selection behavior, food intake and utilization (Lepidoptera), rodent ecology and population management in agric crops. Exper: Plant Protection Asst (1946-47); Lecturer in Entomology (1950-54); Cane Protection Inspector (1954-63); Asst Professor, Entomology (1963-65); Extension Specialist (Entomology (1965-69); Extension Entomologist (1973-present); 5 conferences. Title: Extension Entomologist. Address: G. B. Pant Univ of Agric and Technology, Pantnagar, (Dist Nainital) U.P., INDIA.

KHAN, Abdur Rahman (1939). Cit: Pakistan. Lang: Pushto, English, Punjabi, Urdu. Acad Degrees: BSc Peshawar (1958); MSc Beirut (1966); MSc Peshawar (1970); PhD North Carolina State (1973). Spec: Plant breeding for high yield, early maturity and insect resistance. Exper: Research Asst and Farm Manager, hybrid maize seed production (1958-63); Asst Botanist, maize (1964-present); international meetings and travel in Middle East, U.S.A., and Mexico. Title: Asst Botanist. Address: Agric Research Station D.I. Khan, N.W.F. Province, PAKISTAN.

KHAN, Farzand Ali (1937). Cit: Pakistan. Lang: Punjabi, Urdu, English, Spanish. Acad Degrees: BSc Lahore (1956); MSc Lyallpur (1972). Spec: Agronomy, plant breeding; wheat, cereals; wheat breeding and production. Exper: Research Asst (1955-60); Farm Management and Extension, Research Asst, Wheat (1961-67); Asst Botanist, millet (1968-70); Asst Botanist, wheat (1971-present); 1 yr training in wheat breeding and production, CIMMYT (1968). Title: Asst Botanist. Address: Dept of Agric Research, Punjab Agric Research Institute, Lyallpur, PAKISTAN.

KHAN, Tanveer Nasir (1944). Cit: India. Lang: Urdu, Hindi, English. Acad Degrees: BSc Agra (1962); MSc Agra (1964); PhD Western Australia (1968). Spec: Plant breeding and genetics; grain legumes, barley, millet; genetics of host-parasite system, application of haploid pollen plant to breeding, population, breeding in self-fertilized crops. Exper: Research Officer (1968-69); Research Fellow (1969-70); Lecturer, Makerere Univ, Uganda (1970-72); Lecturer Papua Univ (1973-present); research in genetics, plant breeding (1968-present); authored and co-authored 30 publications. Title: Lecturer in Tropical Agronomy. Address: Faculty of Agric, Univ of Papua, P.O. Box 4820, Univ, Papua, NEW GUINEA.

KHARE, Mahendra Nath (1934). Cit: India. Lang: Hindi, English. Acad Degrees: BSc Agra (1952); MSc Agra (1954); PhD Illinois (1967). Spec: Plant pathology, botany; soybeans, lentils, Bengal gram, urd beans, mung beans, peas, cowpeas, French beans. Exper: Total experience, 20 yrs with teaching, research, and extension activities; conferences in India and U.S.A.; 55 publications. Title: Assoc Professor, Plant Pathology. Address: Dept of Plant Pathology, Jawaharlal Nehru Krishi Vishwa Vidyalya, Krishinagar, Jabalpur-4, M.P., INDIA.

KHAZPA, Houshang (1932). Cit: Iran. Lang: Persian, English. Acad Degrees: BSc Tehran (1958); MSc Tehran (1959). Spec: Plant pathology; wheat, barley; plant pathology. Exper: Breeding for disease resistance in Iran (1959-61); in Mexico (1961-62); research, wheat and barley diseases, Iran (1962-present); six conferences in Asia and Europe on plant breeding and plant pathology. Title: Director of Plant Pathology. Address: Seed and Plant Improvement Center, Karaj, IRAN.

KIDANE-MARIAM, Haile-Michael (1935). Cit: Ethiopia. Lang: Amharic, English. Acad Degrees: BSc College of Agric, Hisu (1962); MSc California (Davis) (1965); PhD Wisconsin (1973). Spec: Plant breeding; potatoes, sweet potatoes, other root crops; plant

improvement. Exper: Teaching and research at College of Agric, Dire Dawa both before and after academic work at Wisconsin. Title: Asst Professor. Address: College of Agric, P.O. Box 138, Dire Dawa, ETHIOPIA.

KIM, Kil Ung (1943). Cit: Korea. Lang: Korean, English. Acad Degrees: BS Kyungpook (1966); MS Kyungpook (1969); PhD Philippines (1973). Spec: Weed science, agronomy; rice, barley, soybeans, potatoes; weed control in major crops, all agronomic aspects of rice culture. Exper: Research Asst (1969); Instructor (1970); Post-doctoral Fellow at IRRI (1973-74); Weed Scientist and Agronomist (1974-present). Title: Weed Scientist and Agronomist. Address: Agronomy Dept (Rice), Crop Experiment Station, Office of Rural Development, Suweon, KOREA.

KING, Stanley B. (1939). Cit: U.S.A. Lang: English. Acad Degrees: BA Goshen College (1961); MSc Ohio State (1963); PhD Ohio State (1966). Spec: Botany, plant pathology; grain sorghum, maize, millet, sweet sorghum, sugarcane; host plant resistance to diseases. Exper: 7 yrs research in West Africa on sorghum, maize and millet; identification of disease-resistant germplasm, Nigeria. Title: Research Plant Pathologist. Address: Agric Research Station, USDA, Route 10, Box 152, Meridian, Mississippi 39301, U.S.A.

KISHORE, Hari (1917). Cit: India. Lang: Hindi, English. Acad Degrees: BSc Allahabad (1937); MSc Allahabad (1939); Assoc IARI (1942); PhD Wisconsin (1960). Spec: Genetics, plant pathology; potatoes, wheat; plant breeding and genetics in relation to disease and pest resistance, genetics of polyhaploids. Exper: Research Asst, wheat, potatoes, oilseeds, grain legumes (1943-51); Asst Botanist, potatoes (1951-60); Cytogeneticist, potatoes (1960-62); Geneticist, potatoes (1962-67); Senior Geneticist, potatoes (1967-71); Head, Division of Genetics, Potato Research Institute (1972-present). Title: Head, Division of Genetics. Address: Central Potato Research Institute, Simla, INDIA.

KISSIEDU, Albert Francis K. (1934). Cit: Ghana. Lang: Akan, Serbocroatian, English. Acad Degrees: BSc Belgrade (1963); MSc Belgrade (1968). Spec: Agronomy, farm management; maize, cowpeas, groundnuts, cassava, tobacco; nutritional requirements of field crops, crop rotation. Exper: Research team concerned with optimal intensity in production of maize, wheat, sunflowers, sugar beets, Faculty of Agric, Belgrade, Yugoslavia (1964-66). Title: Research Officer. Address: Crops Research Institute, Private Post Bag, Ohawu via Abor, Volta Region, GHANA.

KLAIMI, Youssef Y. (1932). Cit: Lebanon. Lang: Arabac, English, French. Acad Degrees: Ing Agr Montpellier (1954); PhD California (1972). Spec: Genetics, plant breeding; wheat, barley; wheat breeding and genetics. Exper: 20 yrs research in plant breeding. Title: Researcher, Head, Plant Breeding Dept. Address: Agric Research Institute, Tel-Amara, Ryak 8130, LEBANON.

KOGAN, Marcos (1933). Cit: Brazil. Lang: Portuguese, English, Spanish, French, Hebrew. Acad Degrees: BSc Escola National de Agronomia, Brazil (1961); PhD California (1969). Spec: Entomology; soybeans, other grain legumes; insect behavior and ecology, insect pest management, biological control. Exper: Entomologist, citrus, Agric Research Station, Brazil (1961-69); Biologist, taxonomy (1963-66); Assoc Entomologist, soybeans, Illinois Natural Histroy Survey and Assoc Professor, Univ of Illinois (1969-present); published 50 journal articles and 3 book chapters. Title: Assoc Entomologist/Assoc Professor of Agric. Addrsss: Illinois Natural History Survey, 163 Natural Resources Building, Urbana, Illinois 61801, U.S.A.

KOLI, Stephen E. (1941). Lang: Twi, Guan, Ewe, English, French. Acad Degrees: BSc Cornell (1964); MSc Wisconsin (1966). Spec: Agronomy; maize, sorghum, cowpeas, groundnuts, yams; optimum planting dates, population studies, fertilizer usage. Exper: Chemical Analyst, Wisconsin Alumni Research Foundation, U.S.A. (1966-68); Ghana Delegate IITA Root Crop Seminar (1970); seminar on cereal crops, Dakar, Senegal (1971). Title: Research Officer, Agronomy. Address: Crops Research Institute, P.O. Box 3785, Kumasi, GHANA.

KOSHY, Puthenkandathil K. (1942). Cit: India. Lang: Malayalam, English, Hindi, Punjabi, German. Acad Degrees: BSc Allahabad Agric Institute (1962); MSc New Delhi (1964); PhD New Delhi (1968). Spec: Nematology, plant pathology, mycology, entomology, biochemistry; coconuts, pulses, cacao, maize, millets; nematological investigations of coconuts, pulses, cacao, cereals and millets. Exper: Research 12 yrs; 3 international symposiums, wheat, maize, and nematology workshops (ICAR) (1968 and 1972); UNDP advanced training in nematology. Title: Nematologist. Address: Central Plantation Crops Research Institute, Krishnapuram, P.O. Kayangulam, Kerala, INDIA 690533.

KOSHY, Sucy (Mrs.) (1920). Cit: India. Lang: Malayalam, English, Hindi. Acad Degree: BSc Ohio (1948). Spec: Home economics, food and nutrition; maize (high lysine), wheat, grain legumes; human

nutrition, food acceptance field trials, nutrition education, teaching. Exper: Research on foods and nutrition (1948-present); Nutritionist in applied nutrition programs for UNICEF; Home Economist, IARI (1966-present). Title: Home Economist. Address: Division of Agric Extension, Indian Agric Research Institute (IARI), New Delhi 12, INDIA.

KOVACS, Istvan. (1922). Cit: Hungary. Lang: Hungarian, English. Acad Degrees: MSc Agric Univ, Godollo (1950); PhD Ag Res Inst, Hungary (1958); D Sc Ag Res Inst, Hungary (1970). Spec: Plant breeding, genetics; maize; new breeding and testing methods, protein quality. Exper: Junior Research Worker, maize (1950-56); Senior Research Worker in charge of maize breeding (1956-present); Head, Plant Breeding Dept (1968-present); 14 international conferences; travel in Europe and North America. Title: Head, Plant Breeding Dept. Address: Agric Research Institute, Hungarian Academy of Sciences, 2462 Martonvasar, HUNGARY.

KRAPOVICKAS, Antonio (1921) Cit: Argentina. Lang: Spanish, English. Acad Degree: Ing Agron Buenos Aires (1948). Spec: Cytotaxonomy; peanuts; taxonomy, evolution. Exper: Research, peanuts, Experiment Station (1949-56); Professor, Genetics, Univ Tucuman (1956-64); Professor, Genetics (1964-present). Title: Professor, Director, Dept of Botany. Address: Facultad de Ciencias Agrarias, Sargento Cabral 2139, Corrientes, ARGENTINA.

KRARUP, Aage (1933). Cit: Chile. Lang: Spanish, English. Acad Degrees: Ing Agr Chile (1957); MSc California (1963); PhD Minnesota (1970). Spec: Plant breeding; peas, beans, tomatoes; breeding and seed production. Exper: Research and teaching, vegetable crops (1957-present); Latin American agric policy conferences. Title: Dean, Faculty of Agric Sciences. Address: Universidad Austral de Chile, Casilla 567, Valdivia, CHILE.

KRISHNAN, Raghavan (1938). Cit: India. Lang: Tamil, English. Acad Degrees: BSc (1957) and MSc (1960) Madras Univ; MTech (1961) and PhD (1967) Indian Institute of Technology. Spec: Botany, cytogenetics, genetics, and plant breeding; tuber crops, pulses, forage crops, oats, sorghum; botany, cytogenetics, genetics and plant breeding of crop plants. Exper: Senior Research Fellow (1966-67); Post-doctoral Research Fellow (1967-68); Junior Geneticist, Central Tuber Crops Research Institute (1968-70); Plant Breeder (grasses) (1970-present). Title: Plant Breeder. Address: Indian Grassland and Fodder Research Institute (IGFRI), Jhansi, U.P., INDIA.

KRONSTAD, Warren E. (1932). Cit: U.S.A. Lang: English. Acad Degrees: BSc Washington State (1957); MSc Washington State (1959); PhD Oregon State (1963). Spec: Plant breeding, genetics, agronomy; wheat, barley; breeding for superior agronomic traits and nutritional properties. Exper: Research Asst, wheat (1957-63); Asst Professor (1963); USAID (1967); USAID Consultant, Mexican Wheat Program (1971). Title: Professor of Agronomy. Address: Agric Hall 138; Agronomic Crop Science Dept, Oregon State Univ, Corvallis, Oregon 97331, U.S.A.

KRUTMAN, Sarah. (1923). Cit: Brazil. Lang: Portuguese, English, French, Idish. Acad Degree: BSc Superior Agric Univ (1945). Spec: Plant breeding; beans, cowpeas; inbreeding. Exper: Soils Asst, fertilizer use in sugarcane (1954-55); research on physiology of water in sugarcane (1956-66); Research Officer in charge of bean investigations (1966-73); Research Asst in virus studies on southern beans (1973-74). Title: Principal Research on Beans. Address: IPEANE/EMBRAPA, C. P. 205, Recife, P. E., BRAZIL.

KWAJE, Samson L. (1948). Cit: Uganda. Lang: Kakwa, Swahili, English, Arabic. Acad Degrees: BSc Makerere (1972); MSc Makerere (1974). Spec: Plant pathology, disease resistance; sorghum, finger millet, maize, bulrush millet; crop protection with special interest in breeding for disease resistance. Exper: Research Asst, sorghum pathology (1973-74); two conferences; traveled in Malawi, Sudan, Zaire. Title: PhD Graduate Student at West Virginia. Address: c/o Mrs. Barbara R. Alvis, Foreign Student Advisor, Elizabeth Moore Hall, West Virginia Univ, Morgantown, West Virginia 26506, U.S.A.

KWON, Shin Han (1931). Cit: Korea. Lang: Korean, English, Japanese. Acad Degrees: BSc Seoul (1957); MSc Wisconsin (1960); PhD Wisconsin (1962). Spec: Plant breeding; soybeans, rice, barley; soybean breeding. Exper: Research Asst (1957-62); Professor, plant breeding (1963-present); FAO Agric Officer, legume breeding in tropical countries (1967-69); Senior Investigator, soybean breeding (1963-present). Title: Head, Applied Genetics Laboratory, Korea Atomic Energy Research Institute. Address: P.O. Box 7, Cheong-Ryang-Ri, Seoul, KOREA.

KYU-YONG, Chung (1924). Cit: Korea. Lang: Korean, Japanese, English. Acad Degree: BSc Agric College, Seoul National Univ (1949). Spec: Agronomy; rice, wheat, barley, soybeans; industrial crops. Exper: Research Asst, industrial crops (1944-58); Research Officer, in charge of industrial crops investigations

(1958-71). Title: Director. Address: Yung-Nam Crop Experiment Station, Office of Rural Development, Milyang, KOREA.

LADEINDE, Tolulope A. O. (1941). Cit: Nigeria. Lang: Yoruba, English, French. Acad Degrees. BSc Univ of Ife, Nigeria (1967); MSc Wiscosin (1970); PhD Wisconsin (1973). Spec: Plant breeding, cytogenetics; cowpeas, soybeans, local vegetables; general breeding, genetics, cytotaxonomy, reproductive physiology. Exper: Agric Education Officer (1967-68); Research Officer in charge of grain legumes (1968-present); Research Asst [illegible] Horticulture (1969-73); Lecturer, cytogenetics (1974-present). Title: Research Officer. Address: Federal Dept of Agric Research, Moor Plantation, Ibadan, NIGERIA.

LAING, Ebenezer (1931). Cit: Ghana. Lang: English, Fanti. Acad Degrees: BSc London (1954); PhD Cambridge (1958). Spec: Botany, genetics, biometry; cowpeas, bambara groundnuts; genetics of agronomic features. Exper: Research on genetics of rice, plant genetics, theoretical genetics, teaching Univ courses at Legon and Ibadan, Nigeria; supervision of PhD students, external examiner at Kumasi and Nairobi; Head, Dept of Botany, Univ of Ghana (1972-present); Assoc Director, Population Dynamics Programme; various international meetings on genetics and biometry. Title: Assoc Professor. Address: Dept of Botany, P.O. Box 55, Univ of Ghana, Legon, Accra, GHANA.

LAL, Madhu Sudan (1928). Cit: India. Lang: Hindi, English, Urdu. Acad Degrees: BSc Kanpur (1948); MSc Kanpur (1950); PhD Agra (1962). Spec: Plant breeding, genetics; soybeans, grain legumes, wheat, millet; breeding for high yield and seed quality. Exper: Research Asst, wheat, millet (1951-53); Lecturer in Agric Botany (1953-56); Senior Lecturer (1956-63); Professor (1963-66); Economic Botanist, grain legumes and soybeans (1966-68); Botanist, soybeans, AICRP (1968-74); Economic Botanist, rice, wheat, maize, grain legumes, Bhutan (1974-present); twelve conferences in India and U.S.A. since 1961. Title: Economic Botanist, Royal Government of Bhutan. Address: Directorate of Agric, Royal Government of Bhutan, Thimphu, BHUTAN.

LALAMA HIDALGO, Mario L. (1940). Cit: Ecuador. Lang: Spanish, English. Acad Degrees: BSc Ecuador (1965); MSc Chapingo (1971). Spec: Genetics, statistics; wheat, barley; plant breeding. Exper: Research Asst, barley (1963-65); Research Asst, wheat (1965-71); Chief, Wheat Improvement Program 91971-present); Professor of Statistics (1967-present). Title: Chief, Wheat Improvement Program. Address: Instituto Nacional de Investigaciones Agropecuarias, Aptdo 340, Quito, ECUADOR.

LAMBERT, Michel (1923). Cit: France. Lang: French, English. Acad Degrees: Baccalaureat, Tropical Agricultural School, Paris (1942); Ing Agric (1954). Spec: Agronomy; root and tuber crops, coconuts; cultivation, fertilizer use. Exper: French Equatorial Africa (1946-61); New Caledonia (1964-68); South Pacific Commission (1968-present). Title: Principal Agric Specialist (Overseas Section, Ministry of Agric, Paris). Address: South Pacific Commission, D 5, Noumea, NEW CALEDONIA.

LANTICAN, Ricardo Manzo (1933). Cit: Philippines. Lang: Tagalog, English. Acad Degrees: BSc Philippines (1954); MSc North Carolina State (1956); PhD Iowa State (1961). Spec: Plant breeding and genetics; soybeans, mungbeans, peanuts and other grain legumes; irrigation. Exper: Teaching graduate and undergraduate courses in crop improvement and production, Director of Research at College of Agric at Los Banos, trained technicians for extension work, consultant with Asian Development Bank on three irrigation projects; given "Ten Outstanding Young Men Award" in 1968. Title: Professor of Agronomy. Address: Univ of Philippines at Los Banos, College, Laguna, PHILIPPINES.

LAPIS, Delfin B. (1931). Cit: Philippines. Lang: Filipino, English. Acad Degrees: BSA Philippines (1959); MSc Philippines (1965); PhD Minnesota (1970). Spec: Plant pathology; rice, wheat, corn, vegetables, mushrooms; etiology and disease control. Exper: Research Asst, corn (1959-60); Instructor, vegetable diseases (1960-65); Research Asst, wheat (1966-70); Asst Professor in charge of wheat, mushroom and multiple cropping (1970-present). Title: Asst Professor. Address: Dept of Plant Pathology, College of Agric, Los Banos, Laguna, PHILIPPINES.

LARREA, Pablo E. (1931). Cit: Ecuador. Lang: Spanish, English. Acad Degrees: Ag Eng Universidad Central Del Ecuador (1958); MSc North Dakota State (1966). Spec: Agronomy, plant breeding; wheat, barley, oats, corn, rice; breeding, quality, statistics. Exper: Wheat Breeder (1958-61); Director, Agric Experiment Station (1966-68); Professor, Central Univ (1967); Sub-Director General of INIAP (1974). Title: Deputy Director, of INIAP. Address: INIAP P.O. Box 2600, Quito, ECUADOR.

LAURENCE, Gordon A. (1934). Cit: Trinidad and Tobago. Lang: English, Spanish, French. Acad Degree: BSc Manitoba (1967). Spec: Entomology, apibotany; pigeon peas; cabbage, sweet potatoes, fruits; chemical pest

control, regulation of pesticides, forage preferences of the honey bee. Exper: County Extension Officer (1967-68); Agric Entomologist (1968-present); Teacher Agric Institute, Regional Workshops and In-Service Training Courses (1967-present). Title: Agric Entomologist. Address: Ministry of Agric, Lands and Fisheries, Central Experiment Station, Centeno, VIA ARIMA Post Office, TRINIDAD AND TOBAGO.

LAYCOCK, Derek (1942). Cit: U.K. Lang: English. Acad Degrees: BSc Univ of Hull, England (1964); MSc East Angila (1965). Spec: Botany, biophysics; maize, potatoes; crop protection, crop physiology, food quality. Exper: Plant Physiologist and Growth Regulant Development Officer - CIBA Agrochemicals (1968-71); Maize Agronomy Project (present). Title: Maize Agronomist. Address: Maize Agronomy Project, The National Agric Research Station, P.O. Box 450, Kitale, KENYA.

LEE, Eun Woong (1924). Cit: Korea. Lang: Korean, English, Japanese. Acad Degrees: BSc Suwon College (1945); MSc Minnesota (1961); PhD Seoul (1966). Spec: Agronomy, plant physiology, ecology; rice, barley, wheat, soybeans; fertilizer use, seed production, land utilization, crops varietal study. Exper: Professor, Head of Dept of Crop Science (1965-74); Director of the Standing Committee, Korean Society of Crop Science (1965-present); Executive Secretary, Korean Agric Science Association (1965-present); interntional meetings, variety improvement, Japan (1968), rice research under the International Atomic Energy Organization, Hong Kong (1969). Title: Professor, Section Chief of Academic Affairs. Address: College of Agric, Seoul National Univ, Suweon, KOREA.

LEE, Hong Suk (1932). Cit: Korea. Lang: Korean, Japanese, English. Acad Degrees: MSc Seoul (1958); PhD Hokkaido (1970). Spec: Plant breeding; wheat and upland crops. Exper: Study at North Carolina State Univ (1960-61). Title: Asst Professor. Address: Dept of Agronomy, College of Agric, Seoul National Univ, Suweon, SOUTH KOREA.

LEE, Kyung-Hee (1930). Cit: Korea. Lang: Korean, English, Japanese. Acad Degree: BSc Seoul National Univ (1959). Spec: Plant pathology; rice, wheat, barley, soybeans; epidemiology and control of rice diseases. Exper: Junior Researcher, bacterial diseases and rice disease forecasting (1959-67); Senior Researcher, rice diseases (1968-present); counterpart of UNDP plant protection project in Korea (1971-present). Title: Senior Researcher. Address: Institute of Agric Science, Suweon 170, SOUTH KOREA.

LEE, Seung-Chan (1935). Cit: Korea. Lang: Korean, English, Japanese. Acad Degrees: BSc Seoul (1960); MSc Canterbury, N.Z. (1968). Spec: Entomology, insect toxicology; rice, barley, soybeans, wheat, potatoes; integrated pest control. Exper: Research Officer, Orchard Pests (1962-70); study of insect toxicology, N.Z. (1956-67); Asst Head, Entomology Dept of Research Programs/Chief Researcher on integrated control of rice and citrus pests (1970-present); 3 conferences in South Pacific and U.S.A. Title: Senior Research Officer. Address: Institute of Agric Science, ORD, Suweon 170, SOUTH KOREA.

LELEJI, Onogbakere I. (1940). Cit: Nigeria. Lang: Urhobo, English. Acad Degrees: BSc Michigan State (1965); MSc Iowa State (1968); PhD, Cornell (1970). Spec: Plant breeding; cowpeas; improved varieties and increased yield. Exper: Research Asst, corn (1966-68); Research Asst, beans (1968-70); Research Fellow, cowpea breeding (1971-present). Title: Research Fellow. Address: Institute for Agric Research, Samaru, NIGERIA.

LE MARCHAND, Guy (1914). Cit: Belgium. Lang: French, English. Acad Degrees: BSc Louvain (1935); PhD Louvain (1937). Spec: Agronomy, plant breeding; tropical beans, cereals, tubers; improvement of protein quality in beans, breeding program for tropical Africa. Exper: Research Officer food crop breeding at INEAC, Gandajika, Zaire (1941-46) and Mulungu, Zaire (1952-63); Director, INEAC Experiment Station at Keyberg (1948-51); in charge of tropical beans improvement at the Dept of Tropical Agric, Faculty of Agronomy, Cembloux. Title: Chef de Travauz. Address: Faculte des Sciences Agronomiques de l'Etat a Gembloux, Chaire de Phytotechnie des Regions Chaudes, 5800 Gembloux, BELGIUM.

LEMOS, Margarida Agostinho (1942). Cit: Brazil. Lang: Portuguese, English. Acad Degrees: BSc (1966); MSc Piracicaba. Spec: Genetics, plant breeding; maize, rice, sorghum, wheat; protein quantity and quality. Exper: Ministry of Agric, IPEANE, 1967; Ministry of Agric, EMBRAPA 1974; research in maize since 1970. Title: Now working on Doctoral degree. Address: Instituto de Genetica - ESALQ, Caixa Postal, 83, 13400 Piracicaba, Sao Paulo, BRAZIL.

LENG, Earl R. (1921). Cit: U.S.A. Lang: English, German, Serbo-Croatian. Acad Degrees: BS Illinois (1941); MSc Illinois (1946); PhD Illinois (1948). Spec: Agronomy, plant breeding, development; maize, soybeans; breeding for yield and agronomic performance, developmental morphology, adaptation. Exper: Research Asst, maize (1941, 1946-48);

Asst Professor, Illinois Maize Research (1948-55); Assoc Professor and Senior Maize Breeder (1955-58); Professor (1958-present) Senior Maize Breeder (1958-64); Univ of Illinois/USAID contract team, Uttar Pradesh Agric Univ (1964-66); Leader and Project Director, INTSOY and related projects (1967-73); Asst, then Assoc Director, International Agric Programs (1969-73); Crop Production Specialist, TA/AGR, Agency for International Development (present); Consulting assignments in Brazil, Malaysia, Indonesia. Title: Crop Production Specialist. Address: TA/AGR Agency for International Development, Washington, D. C. 20523 U.S.A.

LEYPON-NOGUERA, Ernesto (1943). Cit: Nicaragua. Lang: Spanish. Acad Degree: Ing Agr Nicaragua (1970). Spec: Agronomy; food legumes, maize, rice, sorghum; breeding for disease resistance. Exper: In charge of grain legumes (1970-73); Professor in national agric school (1973); undertaking graduate studies at Univ of Puerto Rico (present). Title: Professor. Address: Centro de Ensenanza, Extension e Investigacion Agropecuaria, Aptdo 453, Managua, NICARAGUA.

LIN, Cheng-I (1926). Cit: Republic of China. Lang: Chinese, Japanese, English. Acad Degree: BSc National Taiwan Univ (1950). Spec: Plant breeding; rice, groundnuts, sweet potatoes; agronomy and seed technology. Exper: Special missions to Liberia, Togo, Vietnam, Japan, Portugal, New Zealand and the Philippines (1959-70); Professor of Agronomy, Taiwan National Univ. Title: Seed Specialist, Professor of Agronomy. Address: Joint Commission on Rural Reconstruction, Taipei, Taiwan, REPUBLIC OF CHINA.

LLANO, Aurelio (1942). Cit: Colombia. Lang: Spanish, English. Acad Degree: BSc California State Polytechnical Institute (1970). Spec: Plant pathology; beans, corn, and sorghum; bean diseases. Exper: Professor of Microbiology and Head of Disease Laboratory, National School of Agric, 2 yrs, now Head of Plant Pathology. Title: Professor. Address: Aptdo 453, Escuela Nacional de Agricultura y Ganaderia, Managua, NICARAGUA.

LLOSA, Carlos (1929). Cit: Peru. Lang: Spanish, English. Acad Degrees: Ing Agr, Peru (1952); MA Purdue (1964); PhD Purdue (1970). Spec: Plant breeding, genetics; wheat, barley; genotype-environment interaction. Exper: Research Asst (1953-60); national wheat researcher (1961-70); Assoc Professor of Agronomy (1967-67, 1974-present); published 20 papers. Title: Chief, Cereals Department. Address: Estacion Experimental Agricola - La Molina, Aptdo 27 91, lima, PERU.

LOPEZ, Hernan (1927). Cit: Chile. Lang: Spanish, English, French. Acad Degrees: BSc Chile (1953); MSc (1962) and PhD (1970) Oregon State. Spec: Agronomy, weed control; wheat, potatoes, oats, small grains; weed control. Exper: In charge of Weed Control Program Chilean Agric Research Institue (1957-present); Professor of Weed Control, Austral Univ (1963-present); 15 conferences in South America and U.S.A. Title: Director. Address: Carillanca Experiment Station, Agric Research Institue, Casilla 58-D, Temuco, CHILE.

LORZ, Albert P. (1907). Cit: U.S.A. Lang: English. Acad Degrees: AB Allegheny College (1930); PhD Virginia (1935). Spec: Biology, plant cytogenetics, breeding; table vegetables, legumes; varietal improvement and adaptation. Exper: Professor, Biology, Canisius College; Professor of Biology and Dept Head; Assoc in Horticulture, Purdue; Assoc and Horticulturist, Univ of Florida; short-term assignments with USAID in Costa Rica, Guyana, El Salvador. Title: Professor Emeritus. Address: Dept of Vegetable Crops, IFAS, Univ of Florida, Gainesville, Florida 32601, U.S.A.

LUCKMANN, William H. (1926). Cit: U.S.A. Lang: English. Acad Degrees: BSc Missouri (1949); MSc Illinois (1951); PhD Illinois (1956). Spec: Entomology; soybeans, maize; insect pest management. Exper: Research on vegetables, soybeans, maize (1949-74); research administration (1965-present); short-term assignments to India (3 times), Jamaica, British Honduras. Title: Professor and Head. Address: Section of Economic Entomology, 163 Natural Resources Building, Urbana, Illinois 61801, U.S.A.

LUSANANDANA, Bhakdi (1920). Cit: Thailand. Lang: Thai, English. Acad Degrees: BSc Agric Philippines (1939), MSc Ohio (1951), PhD Ohio (1954). Spec: Plant physiology; cereals. Exper: 30 yrs research. Title: Director General. Address: Department of Agric and Cooperatives, Bangkok 2, THAILAND.

MAAMOURI, Ali Ridha (1936). Cit: Tunisia. Lang: Arabic, French, English. Acad Degrees: Diplome de l'Ecole d'Agriculture de Tunis; Licence de Sciences Naturelles. Spec: Plant breeding; wheat, barley, oats; varieties. Exper: Many overseas missions to U.S.A., France, Mexico, etc. Title: Head, Genetics Laboratory. Address: Institut National de la Recherche Agronomique de Tunisie, Ariana, TUNISIA.

MACHARIA, Charles N. (1938). Cit: Kenya. Lang: Kikuyu Swahili, English. Acad Degree: AAS Alfred Tech College (1964). Spec: Agricultural engineering; maize, beans, barley; maize breeding for commercial interest. Exper: Extension Asst, mixed farming (1961-62); Extension Officer, rice growing (1964-65); Trials Officer, general research (1965-66); Research Asst, methods of breeding study (1967-70); maize breeding (1971-74). Title: Plant Breeder. Address: c/o Kenya Seed Company, P.O. Box 553, Kitale, KENYA.

MADAMBA, Cesar P. (1932). Cit: Philippines. Lang: Filipino, English. Acad Degrees: BSc Philippines (1953); MSc Iowa State (1958); PhD North Carolina State (1964). Spec: Nematology, plant pathology, applied zoology; rice, field legumes, fiber crops; survey, identification and host-parasite relationships of root-knot and other nematodes, soil fumigation. Exper: Taught zoology, entomology, and nematology (1953-present); Project Leader, 3 nematode research projects in Philippines and 1 in Israel (1967-present); Research Leader, upland crop graduate training and research program (1973-present); presented scientific papers at international conferences in U.S.A., Puerto Rico, Philippines. Title: Assoc Prof. Address: Dept of Zoology, College of Sciences and Humanities, Univ of the Philippines at Los Banos, PHILIPPINES.

MADRAMOOTOO, Harry (1916). Cit: Guyana. Lang: English, French. Acad Degrees: BSc British Colombia (1952); MSc Iowa State (1961). Spec. Rice, grain legumes; livestock in rotation with rice, rice research, extension. Exper: Study, England and Denmark; Agric Officer; Curator, Botanic Gardens; Asst Director of Agric; Chief Agric Officer; Principal, Guyana School of Agric; General Manager, Guyana Rice Marketing Board; Director of Research, Guyana Rice Corporation; conferences in North America, Latin America, Asia, Middle East, Europe. Title: Director of Research, Research and Extension Division. Address: Guyana Rice Board, 117 Cowan Street, Kingston, Georgetown, GUYANA.

MAFRA, Rivaldo, Chagas (1933). Cit: Brazil. Lang: Portuguese, English, Spanish. Acad Degrees: Ing Agr Escola Superior de Agricultura-UFRPE (1962); MSc Universidade Federal de Vicosa (1973). Spec: Plant breeding; beans, soybeans, cassava, sweet potatoes; plant nutrition, soil fertility. Exper: Asst Professor, UFRPE; Research Asst, IPA; Chief, Planning and Statistical Section, IPA (1963); Chief, Experiment Stations, IPA (1963-64); Chief, Plant Breeding, IPA (1966-71); Coordinator, food crop conference, SUDENE/IPA (1965-70); statistics training in Piaui (1970). Title: Chief, Cereals and Legumes Section. Address: Instituto de Pesguisas Agronomicas, Av Gal San Martin, 1371-Bongi-Recife-Pe-Brasil, BRAZIL.

MAHAPATRA, Ishwar C. (1929). Cit: India. Lang: Oriya, English, Hindi, German, French. Acad Degrees: BSc Delhi (1953); Assoc IARI, New Delhi (1955); PhD Louisiana (1966). Spec: Agronomy; rice, wheat, maize, groundnuts; multiple cropping, crop husbandry, soil fertility. Exper: Senior Research Asst (1955-58); Research Officer (1958-61); Agronomist, Rice Research Institute (1961-68); Project Coordinator, IARI (1968-present). Title: Project Coordinator, Agronomy. Address: All India Coordinated Agron Research Project, IARI, New Delhi-110012, INDIA.

MAHMOUD, Mahmoud Ahmed (1930). Cit: Sudan. Lang: Arabic, English. Acad Degrees: BSc Cairo (1954); MSc Oklahoma State (1961). Spec: Plant breeding, genetics; sorghum, peanuts, millet; breeding combinable types of good grain quality in sorghum. Exper: 3 yrs, Asst Inspector and Inspector in irrigated cotton production schemes; 15 yrs, Plant Breeder; 7 yrs, Head, Kenana Research Station, Sudan. Title: Senior Plant Breeder. Address: Plant Breeding Seciton, Agric Research Corporation, Gezira Research Station, Wad Medani, SUDAN.

MAKATIANI, Julius Bruno Shibutse (1942). Cit: Kenya. Lang: Luhya, English, Swahili. Acad Degrees: BSc Fresno State (1968). Spec: Agronomy, chemistry, statistics; sugarcane, maize, groundnuts, cassava, soybeans, dwarf beans; research. Exper: Officer in Charge of Katumani Agric Research Station (1967); now Agronomist with the Mumias Sugar Co, Ltd. Title: Agronomist. Address: Mumias Sugar Company, Ltd, Private Bag, Mumias, KENYA.

MAKONNEN, Dejene (1944). Cit: Ethiopia. Lang: Amharic, Galgna, English. Acad Degrees: BSc Haile Selassie I Univ (1968); MSc Purdue (1971); PhD Purdue (1973). Spec: Plant breeding and genetics; maize, wheat, barley, sorghum; yield improvement, protein quantity and quality. Exper: Research Asst, soils (1968-69); Graduate Research Asst (1969-73). Title: Leader of Maize Improvement in Ethiopia. Address: Haile Selassie I Univ, College of Agric, P.O. Box 138, Dire Dawa, ETHIOPIA.

MALDONADO, Amaya U. (1934). Cit: Mexico. Lang: Spanish, English. Acad Degrees: BSc Juarez, Mexico (1955); MSc Iowa State (1965); PhD North Dakota State (1971). Spec: Agronomy, plant breeding; wheat, corn, barley, oats, soybeans; plant breeding and quality. Exper: Research Asst, wheat, barley, oats (1957-64); Research Officer, wheat and oats (1965-69); Sub-Director General, Agric extension (1971-present). Title: Sub-Director General. Address: Extension Agricola Chapingo, Edo de Mexico, MEXICO.

MALIK, Muhammad Zaman (1932). Cit: Pakistan. Lang: Punjabi, Urdu, English. Acad Degrees: BSc Punjab (1954); MSc Punjab (1961); MSc Beirut (1968). Spec: Agric bio-chemistry, food technology, nutrition; potatoes, wheat, maize; yield, cooking, baking, processing quality. Exper: Research Asst in agric bio-chemistry (1955-63); Asst Agric Chemist (1963-71); Asst Food Technologist -- potato research sub-station (1971-present). Title: Asst Food Technologist (Potato). Address: Punjab Agric Research Institute, Lyallpur, PAKISTAN.

MALITHANO, Afunane D. (1936). Cit: Malawi. Lang: Chichewa, English, Swedish, Norwegian, Dutch. Acad Degrees: BSc Wales (1966); MSc Sweden (1968); PhD Sweden (1970). Spec: Cytogenetics, plant breeding; maize; maize breeding for protein quality, development of population hybrids. Exper: Laboratory Asst, maize and cotton, Malawi (1957-60); Undergraduate Research Asst (1963-65); Lecturer in Genetics and Plant Breeding, Malawi (1970-present); Ford Foundation Grant for Post-doctoral Studies in Maize Breeding at Iowa State (1973-74); 3 conferences - U.S.A., Mexico and Iceland; extensive travel in Europe, U.S.A., Mexico and Africa. Title: University Lecturer. Address: Bunda College of Agriculture, P.O. Box 219, Lilongwe, MALAWI.

MAMICPIC, Noel Gayo (1936). Cit: Philippines. Lang: Cebuano, Ilongo, Tagalog, English. Acad Degrees: BSc Philippines (1958); MSc Mississippi (1962); PhD Cornell (1970). Spec: Agronomy, seed technology; mung beans, cowpeas, cassava, soybeans; germ plasm collection, seed technology, evaluation, maintenance and improvement of varieties. Exper: Research Asst, rice (1958-60); Research Instructor, plant breeding (1962-64); Apprentice Seed Technologist, U.S.A. (1966); In charge Field Legumes Project, Univ of the Philippines (1969); Team Leader, crop collection exploration in Southeast Asia for the Philippines Council for Agric Research (1970); Project Leader, commodity seed research. Title: Asst Professor and Chairman. Address: Dept of Agronomy, College of Agric, Univ of the Philippines at Los Banos, College, Laguna, PHILIPPINES.

MANEEPHONG, Chairerg (1941). Cit: Thailand. Lang: Thai, English. Acad Degrees: BSc Kasetsart (1963); MSc Iowa State (1966); PhD Louisiana State (1973). Spec: Agronomy, genetics, plant breeding; rice, mungbeans, soybeans, maize; protein quality and quantity improvement. Exper: Research Asst, maize (1966-70); Junior Lecturer of Agronomy (1966-70); Secretary of Univ Development Program in Biology (1966-70) and (1973-present); Project Leader, Upland Rice Improvement Project at Kasetsart Univ (1973-present). Title: Lecturer. Address: Plant Science Dept, Kasetsart Univ, Bangkok, THAILAND.

MANRIQUE, Antonio (1926). Cit: Peru. Lang: Spanish, English. Acad Degrees: Ing Agr, Peru (1953); MSc Nebraska (1962). Spec: Agronomy, plant breeding; maize, beans; maize improvement. Exper: Geneticist in Peruvian maize program (1955-present); Principal Professor in plant breeding and maize production (1955-present); in charge of Research Division of Agrarian Univ (1967-68); 13 international meetings in Latin America. Title: Principal Professor and Geneticist in Maize Program. Address: Universidad Nacional Agraria, La Molina, Aptdo 456, Lima, PERU.

MARCANO, Luis E. (1923). Cit: Venezuela. Lang: Spanish. Acad Degrees: BSc Caracas (1947); PhD Cornell (1952). Spec: Plant breeding, pathology; beans, vegetables, food crops in general; administration. Exper: Research Asst, bean breeding (1946-48); Research Officer in charge of bean breeding (1952-53); Head of commercial pesticide operation (1953-66); Professor chemical weed control, Central Univ (1954-56); Regional Director of Interamerican Institute Agricultural Sciences, Lima, Peru (1966-70). Title: President, Farmer's Service Foundation. Address: Apartado 2224, Caracas, VENEZUELA.

MARECHAL, Robert (1926). Cit: Belgium. Lang: French, English. Acad Degrees: BSc Gembloux (1947); PhD Gembloux (1950). Spec: Agronomy, cytogenetics; cotton, tropical beans; cytogenetics, cytotaxonomy. Exper: Research Officer in charge of cotton genetics and cytogenetics at INEAC, Yangambi and Gandajika, Zaire (1959-63); in charge of cytogenetic and cytotaxonomic research at the Dept of Tropical Agric, Faculty of Agronomy, Gembloux. Title: Chef de Travaux. Address: Faculte des Sciences Agronomiques de l'Etat, Chaire de phytotechnie des Regions Chaudes, 5800 Gembloux, BELGIUM.

MAREMAH, Lamin J. (1932). Cit: Gambia. Lang: Mandinka, English. Acad Degrees: BSc Durham (1956); Diploma Agric Cambridge (1957); DTA Trinidat (1958); PhD Newcastle-upon Tyne (1964). Spec: Agronomy, plant breeding, extension; groundnuts, cotton, rice; crop husbandry, varietal improvement. Exper: Agric Extension Officer (1954-64); Asst Director of Agric (1964-67); Director of Agric (extension and research) (1967-present); several international technical conferences. Title: Director of Agric. Address: Dept of Agric, Cape St. Mary, Banjul, THE GAMBIA.

MARIE, Rene A. (1923). Cit: France. Lang: French, Spanish, English. Acad Degrees: Ing Agr, Montpellier (1947); Li Sci, Montpellier (1949). Spec: Genetics; rice; breeding, mutation. Exper: Research on rice cultivation and breeding in France (1951-present); Chief, Plant Breeding Div, IRAT (1969-72); Chief, Rice Breeding and Mutation Research, INRA (current); presented 70 papers at conferences in 10 countries in Europe, Asia and Africa. Title: Chief, Rice Breeding & Mutation Research, INRA. Address: Station d'Amelioration Des Plantes, Centre de Recherches Agronomiques, 9 Place Viala, 34060 Montpellier Cedex, FRANCE.

MARQUEZ-SANCHEZ, Fidel (1935). Cit: Mexico. Lang: Spanish, English. Acad Degrees: BSc Mexico (1958); MSc Iowa (1964); PhD Iowa (1968). Spec: Agronomy, plant breeding; maize, sorghum, wheat; yield improvement, quantitative genetics. Exper: Research Asst, maize and sorghum (1960-65); Professor, post-graduate college (1965-present); 10 conferences in Latin America and U.S.A. Title: General Director, National School of Agric. Address: Escuela Nacional de Agricultura, Chapingo, MEXICO.

MARTIN, Franklin W. (1928). Cit: U.S.A. Lang: English, Spanish. Acad Degrees: BSc Oklahoma Baptist (1949); PhD California (1960). Spec: Genetics, horticulture; yams, other tropical root and tuber crops, vegetables; analysis of breeding systems, practical plant breeding. Exper: 13 yrs in problems of fruit and seed production of tropical plants and the evaluation and selection of tropical roots and tubers; 3 yrs administration research station. Title: Director and Plant Geneticist. Address: Federal Experiment Station, Mayaguez, Puerto Rico 00708, U.S.A.

MARTINEZ, Eugenio (1930). Cit: Mexico. Lang: Spanish, English. Acad Degrees: BSc Monterrey (1953); MSc Michigan State (1956); PhD Wisconsin (1962). Spec: Plant pathology; soybeans, wheat, beans; production-oriented research and administration. Exper: Research on beans (1953-55); research on soybeans (1956-60); Director of Research at DIANO Experiment Station (1962-72); Director of Research at ICTA (1973-present). Title: Director of Research, ICTA. Address: Instituto de Ciencia y Tecnologia Agricola, Galerias Espana 5o Piso, 7a Ave No 11-59 Zona 9 GUATEMALA.

MARTINEZ-LOPEZ, Gerardo (1942). Cit: Colombia. Lang: Spanish, English. Acad Degrees: Ing Agr Colombia (1964); MSc Illinois (1971); PhD Illinois (1973). Spec: Plant pathology, virology; potatoes, maize, barley, wheat, oats, fruit trees; plant virus diseases, insect transmission of plant pathogens. Exper: ICA (Colombia) (1966-69); research in plant virology, Univ of Illinois (1969-73); Plant Virologist, and Professor in the Graduate School, ICA (1973-present). Title: Principal Phytopathologist. Address: Instituto Colombiano Agropecuario (ICA), A.A. 151123 (El Dorado), Bogota, D. E., COLOMBIA.

MASAYA, Porfirio N. (1935). Cit: Guatemala. Lang: Spanish, English. Acad Degrees: Ing Agr San Carlos (1966); MSc Turrialba (1971). Spec: Plant breeding and physiology; beans. Exper: Coordinator of multi-disciplinary research for improving yield of dry beans with emphasis on technology for small farmers; Professor of Experimental Design (1971). Title: Head, Bean Production Program, ICTA. Address: Galerias Espana Building, 5th Floor, 11-59 7th Ave. Zone 9, Guatemala City, GUATEMALA.

MASCARENHAS, Hipolito A. A. (1930). Cit: Brazil. Lang: Portuguese, English, Spanish, Hindi, Urdu. Acad Degrees: BSc IARI (1954); MSc Florida (1970); PhD Escola Superior de Agricultura (1972). Spec: Agronomy; soybeans, beans; fertilizers. Exper: Research Asst in charge of soybean investigation. Title: Research Asst. Address: Instituto Agronomico de Campinas, C.P. 28, 13.100 Campinas, S.P., BRAZIL.

MATAMOROS, Jorge (1937). Cit: Ecuador. Lang: Spanish. Acad Degree: Ing Agron Guayaquil (1966). Spec: Agronomy; maize, grasses, cocoa, coffee; seed technology. Exper: Seed production. Title: Head, Dept of Seed Production. Address: Instituto Nacional de Investigaciones Agropecuarias (INIAP), Apartado 24, Quevedo, ECUADOR.

MATHUR, Birdi Prasad (1924). Cit: India. Lang: Rajasthani, Hindi, English, Urdu. Acad Degrees" BSc Agra (1946); Assoc IARI New Delhi (1952); PhD IARI (1966). Spec: Agronomy, Statistics; rice, wheat, grain legumes, millet; crop husbandry, multiple cropping, soil fertility and fertilizer use, extension. Exper: 28 yrs agronomic research on field crops; 10 yrs oilseed crops; 10 yrs multiple cropping; and 8 yrs extension.

Title: Agronomist (Extension). Address: Agronomy Division, IARI, New Delhi, 110012, INDIA.

MAXIMOS, Milad A. (1934). Cit: Egypt. Lang: Arabic, English. Acad Degrees: BSc Cairo (958); MSc Ain Shams (1969); PhD Ain Shams (1974). Spec: Genetics, pathology; rice; breeding for resistance to blast, rice quality. Exper: Research Asst, rice (1960-69); Teaching Asst, rice (1969-74); Head, Rice Research (1974-present); training at IRRI. Title: Head of Rice Research Section. Address: Sakha Agric Research Station, Kafr Elsheikh, EGYPT.

MAZZANI, Bruno (1920). Cit: Venezuela. Lang: Italian, Spanish, French, English. Acad Degree: Dr in Agric Science, Bologna (1947). Spec: Breeding and agronomy; peanuts, sesame, castor beans, oil palm; agronomic adaptation, yield improvement. Exper: Leader in oil crops research, Venezuela (1949-present); Professor of oil crops (1958-present); Professor in plant breeding (1963-present); developed several varieties of sesame; 12 international congresses and meetings; Editor of "Agronomia Tropical" (1961-present). Title: Leader, National Oil Crops Research Program. Address: CENIAP - Instituto de Investigaciones Agronomicas, Maracay, VENEZUELA.

MC DONALD,Duncan (1929). Cit: United Kingdom. Lang: English. Acad Degrees: BSc St. Andrews (1955); Diploma Agr Sci, Cambridge (1956); DTA Trinidad (1957); PhD Ahmadu Bello (1963). Spec: Plant pathology, mycology; groundnuts, cowpeas; groundnut diseases, mycotoxins. Exper: Agric Officer, Nigeria; research on groundnut diseases and aflatoxin (1962-present). Title: Principal Research Fellow and Senior Plant Pathologist. Address: Institute for Agric Research, Ahmadu Bello Univ, PMB 1044, Samaru, Zaria, NIGERIA.

MC GINNIS, Robert Cameron (1925). Cit: Canada. Lang: English. Acad Degrees: BSc Alberta (1949); MSc Alberta (1951); PhD Manitoba (1954). Spec: Cytogenetics and plant breeding; wheat, triticale, rye; crop improvement and administration. Exper: Cytogenetics of wheat, Canada Dept of Agri (1951-60); Assoc Professor (1960-65) and Head (1965-73), Plant Science Dept, Univ of Manitoba; Director, Plant Breeding Station, Njoro, Kenya (on loan from Manitoba) (1973-75). Title: Director. Address: Plant Breeding Station, Njoro, KENYA.

MEHRA, Kharaiti Lal (1930). Cit: India. Lang: Punjabi, English, French, Hindi, Urdu. Acad Degrees: BSc (Hons) Delhi Univ (1952); MSc Delhi (1954); PhD Oklahoma State (1960). Spec: Genetics and plant improvement; potatoes, pulses, cereals, millets; genetics, plant improvement, cytology, botany, evolution under domestication. Exper: Graduate Asst, Oklahoma State (1956-60); Maize Breeder, Indian Agric Research Institute (1960-62); Botanist, Central Potato Research Institute (India); Head of Division of Plant Improvement, Indian Grassland & Fodder Research Institute (1967-present). Title: Head, Division of Plant Improvement. Address: Indian Grassland & Fodder Research Institute, Jhansi, INDIA.

MEHTA, Shanti Lal (1943). Cit: India. Lang: Hindi, English. Acad Degrees: BSc Rajasthan (1962); MSc IARI (1964); PhD IARI (1966). Spec: Biochemistry, nutrition; maize, wheat, rice, chickpeas, peas; protein quantity and quality. Exper: Post-doctoral Fellow, Univ Alberta (1966-68); Biochemist (1969-present). Title: Senior Biochemist. Address: Nuclear Research Laboratory, Indian Agric Research Institute, New Delhi-110012, INDIA.

MEHTA, Yashwant Ram (1916). Cit: India. Lang: Hindi, Gujarati, English, French, German. Acad Degrees: BSc Assahabad (1936); MSc Allahabad (1938); PhD Minnesota (1950). Spec: Botany, plant breeding, genetics; wheat, paddy, maize, sorghum, pearl millet, legumes, potatoes; seed production and processing, breeding and genetics of field and vegetable crops. Exper: Research (1940-63); Chief of Production Division, National Seeds Corporation (1964-present); Visiting Scholar, Univ of Illinois to study system of research, education and extension in Land Grant Colleges; technical member for establishing first Land Grant Univ in India. Title: Chief of Production Division. Address: National Seeds Corporation Ltd. E-4, Jhandewalan Extension, New Delhi, INDIA.

MEINERS, Jack Pearson (1919). Cit: U.S.A. Lang: English. Acad Degrees: BSc Washington State (1942), PhD Washington State (1949). Spec: Plant pathology, agronomy; beans, peas, cowpeas, lentils, lima beans, forage grasses, wheat, barley, oats, maize, sorghum; breeding for disease resistance (bean rust, viruses, root rots). Exper: Bean and pea research (1949-54); forage and cereal disease research (1946-49, 1954-58); administration of agric research, including overseas research (1958-74); bean disease research (1970-present). Title: Chief, Applied Plant Pathology Laboratory. Address: Agric Research Center-West, Beltsville, Md. 20705, U.S.A.

MENDIBURU, Americo O. (1938). Cit: Argentina. Lang: Spanish, English. Acad Degrees: BSc Catholic Univ of Mar del Plata (1966); MSc Wisconsin (1969); PhD Wisconsin (1971). Spec: Genetics, plant breeding, agronomy; potatoes, sunflowers, soybeans, wheat; haploidy, polyploidization via 2n gametes, germ plasm transfer, use of Andigena, varietal breeding of potatoes. Exper: Potato breeding (1964-67); research on sexual polyploidization and heterosis in diploid potatoes (1968-present); Research Officer in charge of potato breeding (1971-present). Title: Research and Acting Chairman, Dept Plant Production. Address: EERA Balcarce, C. C. 276, Balcarce, ARGENTINA.

MERCADO, Beatriz Lentican (1941). Cit: Philippines. Lang: Filipino, English. Acad Degrees: BSc Philippines (1960); MSc Philippines (1964); PhD Iowa (1967). Spec: Plant physiology, weed science; rice, maize, vegetables; weed biology and control, herbicide physiology. Exper: Research Asst (1962-64); Research Instructor (1964-68); Post-doctoral Research Assoc, Univ of Iowa (1967-68); Fulbright-Hays Fellow (1964-67); Asst Professor in Weed Science (1968-present). Title: Asst Professor. Address: Bioscience Building, Univ of the Philippines at Los Banos, College, Laguna, PHILIPPINES.

MERCER, Peter C. (1944). Cit: Ireland. Lang: English, German. Acad Degrees: BA Dublin (1967); PhD DIC London (1970). Spec: Plant pathology; groundnuts; Cercospora control, diseases of pods and roots. Exper: Research Asst (electron microscopy of anthracnose) (1967-70); Groundnut Pathologist (present); 3 international pathology conferences. Title: Plant Pathologist in charge of groundnuts. Address: Agric Research Council of Malawi, Box 215, Lilongowe, MALAWI.

MERCER-QUARSHIE, Hector (1937). Cit: Ghana. Lang: Fanti, English. Acad Degrees: BSc London; MSc Minnesota. Spec: Plant genetics; soybeans, cowpeas, groundnuts, sorghum; yield improvement and general adaptability, protein and oil content, insect and disease resistance. Exper: Research Asst, Maize (1963-66); Research Officer in charge of sorghum, millet and groundnut breeding (1966-72); Senior Research Officer in charge of soybean, cowpea and groundnut breeding (1973-present); 4 international conferences. Title: Senior Research Officer, Legume Breeding. Address: Crops Research Institute, P.O. Box 3785, Kumasi, GHANA.

MERINO, Luis (1924). Cit: Ecuador. Lang: Spanish, English. Acad Degrees: Ing Agr Quito (1951); MSc Michigan State (1966). Spec: Entomology; potatoes, corn, citrus, small grains; insect control. Exper: Asst Entomologist (1950-55); Chief Entomologist of Agric Servicio (1957-62); Chief of Entomology at experiment station (1963-present); 15 technical papers, 4 extension bulletins. Title: Head, Dept of Entomology. Address: Santa Catalina Experiment Station, P.O. Box 340, Quito, ECUADOR.

MIAH, Siddique Ali (1936). Cit: Bangladesh. Lang: Bengali, English, Urdu, Hindi. Acad Degrees: BSc Dacca (1959); MSc Exeter Univ, U.K. (1965); PhD Exeter (1967). Spec: Plant pathology and plant virology; rice, wheat, jute, grain legumes, oilseeds; virus and other diseases of rice, field crops and ornamentals. Exper: Research Asst, tobacco (1960); Plant Pathology Asst, nematode diseases of rice (1960-62); Entomology Asst (1962-64); Asst Mycologist, virus (1967-68); Asst Rice Pathologist (1968-70); Plant Pathologist (1972-present); special training, virology, U.K. (1964) and rice pathology IRRI (1969); 3 conferences on rice research, Philippines. Title: Principal Scientific Officer and Head, Plant Pathology Dept. Address: Bangladesh Rice Research Institute, GPO Box 911, Dacca, BANGLADESH.

MIRANDA, Heleodoro (1929). Cit: Ecuador. Lang: Spanish, English. Acad Degrees: Ing Agr Ecuador (1954); MA IICA (1956). Spec: Genetics, statistics; field beans, cowpeas, pigeon peas; yield of grain legumes. Exper: Professor of Experimental Design (1957-60); Research Asst, maize (1960-62); Officer in charge of bean breeding (1962-65); Co-ordinator of pulses, PCCMCA (1965-present). Title: Specialist in Agric Research. Address: Instituto Interamericano de Ciencias Agricolas de la Organizacion de los Estados Americanos (IICA de la OEA), Aptdo 1688, Sucursal #1, San Salvador, EL SALVADOR.

MIRANDA, Paulo (1932). Cit: Brazil. Lang: Portuguese. Acad Degree: BSc Recife (1962). Spec: Plant breeding; maize, sorghum, beans, cowpeas, soybeans; production, disease resistance. Exper: Many meetings in Brazil, Venezuela, Costa Rica; symposium at USDA, Beltsville (1966). Title: Specialist in Agric Research. Address: Sector de Cereals e Leguminosas, Rua Gomes Pacheco, 490 Aptdo 2, Espinheiro, Recife, Pernambuco, BRAZIL.

MIRZA, Muhammad Shakat Ali (1930). Cit: Pakistan. Lang: Punjabi, Urdu, English, Spanish. Acad Degrees: BSc Peshawar, Pakistan; MSc Lyallpur. Spec: Plant breeding, genetics, agronomy; wheat, barley, millets, pulses, groundnuts, sugarcane, cotton; evolution of disease resistant and high yielding varieties of wheat. Exper: Extension work and farm manager (1950-58); Research Asst in charge of Gram Breeding Sub-station (1958-61); Research Asst (pulses) (1962-63); Asst Botanist (millets) (1963-65); Asst Botanist (wheat) (1966-present); practical training in wheat breeding and seed production, Canada (1963-64), CIMMYT (1971). Title: Asst Botanist (wheat). Address: Punjab Agric Research Institute, Cereal Section, Lyallpur, Punjab, PAKISTAN.

MISRA, Ramesh Chandra (1935). Cit: India. Lang: Oriya, English, Hindi. Acad Degrees: BSc Utkal Univ (1956); MSc Agra (1964). Spec: Botany, embryology, plant breeding; grain legumes; evolution of high yielding varieties, suitable production programs. Exper: Officer in charge pulse research (1965-present); Head, Office of Pulse Specialist (1965-present); Member, All-India Pulse Development Council (1972-present). Title: Pulse Specialist, Government of Orissa. Address: Pulse Research Station, Post:-Nayagarh, Dist:-Puri, Orissa, INDIA.

MISRO, Balabhadro (1920). Cit: India. Lang: Oriya, Hindi, English, German. Acad Degrees: BSc Nagpur (1942); Assoc IARI (1944); MSc London (1948); PhD Cuttack (Utkal)(1963). Spec: Plant breeding and genetics; rice, millet; linkage studies, evolution of varieties. Exper: Agric Supervisor (1942); Senior Research Asst (1944); research, economic botany, paddy specialist (1944-49); Botanist, FAO Rice Hybridization Project (1950-54); Economic Botanist (1954-59); Geneticist and Botanist (1959-69); Dean of Research (1969-present). Title: Dean of REsearch. Address: Research Wing, Orissa Univ of Agriculture and Technology, Bhubaneswar-3, Orissa, INDIA.

MIYASAKA, Shiro (1924). Cit: Brazil. Lang: Portuguese, Japanese, English. Acad Degrees: Paulistano College (1947); PhD Escola Superior de Agricultura "Luiz de Queiroz", Piraciacaba (1951). Spec: Agronomy; soybeans, dry beans, legume forage and green manure; legumes in arid regions. Exper: Extensive soybean research, including development of several widely grown varieties; several specialized courses in genetics, food, etc; participated in numerous international conferences; served as research advisor to Government of Paraquay; presently at National fund for Development of Sciences and Technology; work involves analyses of research projects and technical judgments on grants for research activities to be developed at universities and research institutions in Brazil. Title: Asst to President of FINEP, Planning Ministry. Address: Av Rio Branco 124, 6o Andar, Rio de Janeiro, BRAZIL.

MODGAL, Suresh Chandra (1937). Cit: India. Lang: Hindi, English, Hebrew. Acad Degrees: BSc AGRA (1955); MSc AGRA (1957); PhD AGRA (1967). Spec: Agronomy, water management; rice, wheat, pulses, maize; rainfed agronomy, rice. Exper: Research Asst (1957-61); Asst Professor (1961-62); Research Fellow (water management) Inrehovot-Israel (1962-63); Asst Professor (water management) India Univ of Agric (1963-67); Assoc Professor, Rice Agronomist (1967-73); Post-doctoral research, IRRI (1968-69). Title: Professor of Agronomy. Address: College of Agric, Himachal Pradesh Univ, Palampur- 176061, H.P., INDIA.

MOMUAT, E. O. (19). Cit: Indonesia. Acad Degree: Ir Institute Pertanian Bogor. Spec: Rice. Title: Acting Director. Address: Eastern Indonesia Research Center for Agric, Maros, South Sulawesi, INDONESIA.

MONTALDO, Alvaro (1918). Cit: Chile. Lang: Spanish, English, French. Acad Degrees: Ing Agr, Chile (1941); MSc Minnesota (1947). Spec: Agronomy, plant genetics; cassava, potatoes; yield, quality, disease resistance. Exper: Potato Breeder and Agronomist, Chile (1941-55); Director of Agric Research, Chile (1955-58); Breeder and Professor of root crops, Venezuela (1959-present); Director of Agronomy Institute, (1964-69); several Latin American conferences and courses; various publications. Title: Chief of Root Crops Section. Address: Faculty of Agronomy, Central Univ at Maracay, P.O. Box 97, Maracay, VENEZUELA.

MONTENEGRO, Jose (1935). Cit: Honduras. Lang: Spanish. Acad Degrees: Ing Puerto Rico (1965); MSc Chapingo (1970). Spec: Genetics, plant pathology; beans, maize, rice, potatoes, soybeans, citrus; plant pathology. Exper: Agric Extension Agent; Regional Agronomist; Director of Extension; Chief of Research in Legumes; Chief, Dept Plant Pathology; Coordinator of Research. Title: Director General of Agric Development. Address: Aptdo Postal #309, Tegucigalpa, HONDURAS.

MONTOYA-MAQUIN, Jorge M. (1941). Cit: Haiti. Lang: French, English, Portuguese, Spanish. Acad Degrees: BA La Molina Peru (1961); DSc Montpellier, France (1964). Spec: Ecology; annual and perennial tropical crops; surveying for crop potential. Exper: 30 missions of technical acsistance in Latin American countries (1955-71); elaboration

of an ecological survey for 20 crops in 6 Central American countries. Title: Official Representative, Instituto Interamericano de Ciencias Agricolas (IICA). Address: B.P. 1304, Port-au-Prince, HAITI.

MONYO, John Harry (1939). Cit: Tanzania. Lang: Chagga, Swahili, English. Acad Degrees: BSc London (1964); PhD Nottingham (1968). Spec: Genetics, plant breeding; rice, sorghum, millets, maize, wheat, cowpeas; protein quantity and quality, cytogenetics, genetics. Exper: Research Officer, maize and grain legumes (1964-65); graduate student and demonstrator in genetics (wheat) (1965-68); Director, Research Institute, Ilonga (1969-70); rice breeding, Director Research Institute, Ukiriguru (1971); rice breeding, Lecturer in Genetics and Plant Breeding, Univ of Dar es Salaam (1971-72). Title: Senior Lecturer in Plant Breeding and Genetics and Head Department of Crop Science. Address: Dept of Crop Science, Univ of Dar es Salaam, P.O. Box 643, Morogoro, TANZANIA.

MORA, Victor Manuel (1936). Cit: Nicaragua. Lang: Spanish. Acad Degree: Ing Agron, National School of Agriculture (1961). Spec: Rice; increased yields. Exper: Rural administration, Univ of Central America (1965-69); rice extension, National Bank of Nicaragua (1969-74). Title: Technical Asst, Rice Improvement Program, National Bank of Nicaragua. Address: Apartado 328, Banco Nacional de Nicaragua, Managua, NICARAGUA.

da MOTA, Rinaldo Valenca (1929). Cit: Brazil. Lang: Portuguese, Acad Degree: BSc Superior School of Agriculture of Pernambuco (1952). Spec: Plant breeding; rice, peanuts, corn and sunflowers. Exper: Research, extension and administration for Ministry of Agric. Title: Researcher. Address: EMBRAPA-IPEANE, Km 10 da BR 232, C. P. 205, Recife, Pernambuco, BRAZIL.

de MOURA, Romero Marinho (1942). Cit: Brazil. Lang: Portuguese, Spanish, English. Acad Degrees: BSc (1965), MSc Sao Paulo (1968). Spec: Plant pathology; yams; nematode diseases. Title: Professor of Genetics. Address: Escola Superior de Agricultura, Universidade Federal Rural de Pernambuco, Dois Irmaos, Recife, Pernambuco, BRAZIL.

MPHURU, Athanasius N. (1940). Cit: Tanzania. Lang: Hagga, Swahili, English. Acad Degrees: BSc Makerere Univ (1965); MSc West Virginia (1968). Spec: Grain storage, entomology; maize, sorghum, rice, beans; grain storage, entomology. Title: Senior Lecturer, Agric Entomology. Address: Faculty of Agric, Univ of Dar es Salaam, P.O. Box 643, Morogoro, TANZANIA.

MUGHOGHO, Lewis K. (1937). Cit: Malawi. Lang: Tumbuka, English. Acad Degrees: BSc London (1962); DIC London (1964); PhD Cambridge (1967). Spec: Plant pathology, agronomy; beans, peanuts, cowpeas; cultural practices, storage. Exper: Research Asst, mycology (1962-63); Plant Pathologist, grain legumes (1967-69); Senior Lecturer and Head of Crop Production Dept (1969-73); Team Leader, bean improvement program (1969-present); 9 international conferences. Title: Principal. Address: Bunda College of Agric, Univ of Malawi, P.O. Box 219, Lilongwe, MALAWI.

MUKHERJEE, Bibhash K. (1939). Cit: India. Lang: Bengali, Hindi, Punjabi, English, French, Spanish. Acad Degrees: BSc Delhi (1960); MSc IARI (1962); PhD IARI (1966). Spec: Genetics, plant breeding, biometrical genetics; maize, sorghum; breeding maize and sorghum for yield, disease and pest resistance, protein quality. Exper: Professor and Sorghum Breeder (1966-68); Maize Breeder (1968-present). Title: Senior Maize Breeder. Address: Cummings Laboratory, Indian Agric Research Institute, New Delhi, 110012, INDIA.

MUKHERJEE, Ilabanta (1937). Cit: Ghana. Lang: English, Bengali. Acad Degrees: BSc (1956), MSC (1958) Calcutta; "M Tech" IIT Kharagpur (1960); PhD Belfast (1965). Spec: Plant physiology; maize, rice; nutrition, flowering, protein quality. Exper: Asst Lecturer, Belfast (1964-65); Lecturer, Univ of Ghana (1966-69); Research Assoc, AEC Plant Research Laboratory, Michigan State Univ (1969-71). Title: Senior Research Officer, and Head of Plant Physiology Section. Address: Crops Research Institute, P.O. Box 3785, Kumasi, GHANA.

MUKIIBI, Joseph K. (1937). Cit: Uganda. Lang: Luganda, English. Acad Degrees: BSc Makerere (1963); PhD St. Andrews (1967). Spec: Plant pathology; cowpeas, groundnuts, beans, sweet potatoes; crop loss assessment. Exper: Research on diseases of legumes and root crops; teaching mycology and plant pathology; supervising graduate research; leader of Crop Protection Program; 15 conferences in Africa, Australia, Great Britain, U.S.A. and Latin America. Title: Reader (Assoc Professor) in Plant Pathology. Address: Makerere Univ, P.O. Box 7062, Kampala, UGANDA.

MULLER, Gordon J. (1940). Cit: Guyana. Lang: English. Acad Degrees: BSc Ohio State (1966); MSc Ohio State (1968); PhD Illinois (1971). Spec: Plant pathology, plant protection; maize, groundnuts, cowpeas, vegetables; chemical control of pests,

resistant varieties. Exper: Teaching Asst, Ohio State Univ (1966-68); Research Asst, Univ of Illinois (1968-71); Plant Pathologist, Ministry of Agric, Guyana (1971-present). Title: Plant Pathologist. Address: Central Agric Station, Mon Repos, East Coast Demerara, GUYANA.

MUNDEL, Hans-Henning (1942). Cit: Canada. Lang: German, English, French. Acad Degrees: BSA British Colombia (1964); MSc California (1966); PhD Manitoba (1973). Spec: Plant breeding, genetics, agronomy; wheat, safflower; early-generation yield selection in wheat. Exper: Student Asst, breeding and cytology of tree fruits and orchard grass (1960-64); Research Asst, breeding and cytology of alfalfa (1964-66); Farm Manager, tribal farm colony, India (1966-67); Research Agronomist, initiating safflower improvement program for private research institute in India (1967-69); studying methodology of wheat breeding (1969-72); Plant Breeder for wheat (CIDA), Njoro, Kenya (1972-present); teaching wheat breeding and genetics (1974). Title: Plant Breeder (Wheat). Address: Plant Breeding Station, P.O. Njoro, KENYA.

MUNG, Nguyen Van (1930). Cit: Vietnam. Lang: Vietnamese, French, English. Acad Degrees: St. Thomas College (1950); Wisconsin (1952); Illinois (1953); Washington State (1969). Spec: Genetics and plant breeding; corn, soybeans, peanuts; breeding corn and soybeans. Exper: Held different administrative posts at educational and research institutions; doing breeding work in corn and mutation studies in soybeans. Title: Director, Institute of Agric Research. Address: 121 Nguyen Binh Khiem, Saigon, SOUTH VIETNAM.

MURILLO V., Jose Israel (1940). Cit: Costa Rica. Lang: Spanish. Acad Degree: Agric Ing Universidad de Costa Rica (1966). Spec: Rice genetics and improvement. Exper: Researcher in charge of rice improvement program (1966-74); IICA Plant Improvement Training course (1967); training on rice research, CIAT, Colombia (1969); Assoc Professor, Univ of Costa Rica (1973-74). Title: Head of Rice Improvement Section. Address: Direccion de Investigaciones - Ministerio de Agricultura y Ganaderia, San Jose, COSTA RICA.

MURPHY, William Joseph (1918). Cit: U.S.A. Lang: English, Spanish. Acad Degrees: BSc Missouri (1939); MSc Missouri (1964). Spec: Agronomy; maize, soybeans, wheat, sorghum, rice, other small grains, grasses, legumes; extension, seed improvement. Exper: Asst County Extension Agent (1939-42); U.S. Army (1942-45); Administrative Asst to State Extension Director (1946-47); State Farm Labor Supervisor (1948); State Extension Agronomy Specialist (1949-present); Chief of Party (Missouri/AID) and Seed Improvement Advisor, State of Bihar, India (1968-69). Title: State Extension Agronomy Specialist and Professor of Agronomy. Address: 214 Waters Hall, Univ of Missouri, Columbia, Mo. 65201, U.S.A.

MURTY, Kuchimanchi S. (1928). Cit: India. Lang: Telugu, Hindi, English. Acad Degrees: BSc, Andhra (1949); MSc Banaras (1952); PhD IARI, New Delhi (1961). Spec: Plant physiology, agronomy; rice; production physiology. Exper: Paddy Asst, Madras (1949-52); Research Asst (1954-62); Asst Physiologist (1962-73); Head, Division of Physiology (1972-present); special training in use of isotopes, IARI (1963); special training, plant nutrition, Japan (1968); attended 10 conferences in Japan, Philippines and India. Title: Head, Division of Physiology. Address: Central Rice Research Institute, Cuttack, 753006, Orissa, INDIA.

NAGAICH, Bankey Behari (1931). Cit: India. Lang: Hindi, English, German, French. Acad Degrees: BSc Kanpur (1955); PhD Illinois (1957). Spec: Plant pathology, horticulture; potatoes, temperate fruits, vegetables, cereals; viral and mycoplasmal diseases and their vectors, developments of disease-free stocks. Exper: Asst Virus Pathologist, temperate fruits (1958-63); Virus Pathologist, potatoes (1963-67); Senior Virus Pathologist for potatoes and in charge of plant pathology schemes at CPRI (1967-70); Head, Division of Plant Pathology (1970-present); several national and international conferences and symposia in Europe and the U.S.A.; widely travelled in the Middle East, Europe, and the U.S.A. Title: Head, Division of Plant Pathology. Address: Central Potato Research Institute, Simla-1 (H.P.), INDIA.

NAIDU, K. Mohan (1937). Cit: India. Lang: Telugu, Tamil, Hindi, English. Acad Degrees: BSc Agric College, Andhra Pradesh (1957); MSc Agric College, B.H.U. (1959); PhD Indian Agric Research Institute (1963). Spec: Plant physiology, plant breeding and genetics, chemistry; sugarcane and wheat; drought resistance, flowering, mineral nutrition and water economy. Exper: Asst Lecturer in Botany (1959-60); Pool Officer (1965); Junior Physiologist (1965-72); Senior Physiologist (1972-present). Title: Senior Physiologist. Address: Sugarcane Breeding Institute, Coimbatore. (Tamil Nadu) INDIA.

NA LAMPANG, Arwooth (1932). Cit: Thailand. Lang: Thai, English. Acad Degrees: BSc Kasetsart (1956); MA North Carolina (1961); PhD Oklahoma (1969). Spec: Plant breeding, genetics, agronomy; soybeans, peanuts, mungbeans; varietal and cultural improvement. Exper: Plant collection and evaluation (1956-59); peanut investigations (1961-66); in charge of oil crop improvement (1969-present); six conferences in Asia and Europe. Title: Leader, Oil Crop Project. Address: Dept of Agric, Bangkhen, Bangkok 9, THAILAND.

NASR, Hikmat George (1939). Cit: Lebanon. Lang: Arabic, English. Acad Degrees: BSc Beirut (1961); MSc Beirut (1965); PhD Wisconsin (1970). Spec: Agronomy, plant breeding; wheat, barley, triticale, grain legumes, maize, sunflowers, safflower; breeding of cereals and multiple cropping research. Exper: Asst Instructor in Agronomy, A.U.B. (1961-64); Research Asst in Agronomy, (1964-65); Instructor, agric (1965-66); Instructor, extension, A.U.B. (1966-67); Research Asst, agronomy, Wisconsin (1967-70); Asst Professor, plant breeding and genetics, (1970-present); attended four conferences in Asia and U.S.A. Title: Asst Professor, Plant Breeding and Genetics. Address: American Univ of Beirut (A.U.B.), Beirut, LEBANON.

NAVARRO-FRANCO, Manuel (1934). Cit: Mexico. Lang: Spanish, English. Acad Degrees: BSc Coahuila (1956); MSc Wisconsin (1962). Spec: Agronomy, plant pathology; wheat, barley, oats, rice; plant breeding, yield, quality. Exper: Research Asst in Mexico for wheat (1957-59); Research Officer in charge of National Barley Breeding Program in Mexico (1962-65 and 1969-70); Specialist in wheat breeding and production, ALAD, Lebanon (1971); Research Officer in charge of National Rice Breeding Program in Mexico (1971-72); Director, National Seed Certification Service, Mexico (1972-present). Title: Director of the National Seed Certification Service. Address: Direccion General de Agricultura, Balderas 94, Mexico 1, D.F. MEXICO.

NAVAS, Diego E. (1932). Cit: Panama. Lang: Spanish, English. Acad Degrees: BSA Arkansas (1956); MSc Arkansas (1957). Spec: Entomology; rice, maize, beans; levels of economic damage, biological and integrated control. Exper: Research and extension with Ministry of Agric (1957-64); teaching, research at Univ of Panama (1964-present); Program Director of Mediterranean Fruit Fly Campaign (1964); ten-month research on insect populations, Cambridge (1965). Title: Professor of Entomology. Address: Universidad de Panama, Facultad de Agronomia, Aptdo 3368, Panama 4, PANAMA.

NECESITO, Adolfo C. (1940). Cit: Philippines. Lang: Tagalog, Cebauno, Waray-waray, Ilonggo, Kinaraya, English. Acad Degrees: BSc 1961 and MSc 1964, Univ of Philippines; PhD Cornell (1971). Spec: Crop physiology; sunflowers, sesame, sugarcane, soybeans, corn, rice, wheat; plant-water relation and crop production. Exper: Teaching of basic agronomy, crop production, and physiology, research on tobacco as well as food crops mentioned above, and chairman of several dept and college-wide committees on research and teaching; special training in soil-plant-water relations, photosynthesis, and sugarcane production. Title: Asst Professor in Agronomy. Address: Dept of Agronomy, Univ of Philippines at Los Banos, College, Laguna, PHILIPPINES.

NEELAMRAJU, Ganga Prasada Rao (1927). Cit: India. Lang: Telegu, Hindi, English. Acad Degrees: BSc Bapatla (1949); Assoc IARI (1953); PhD Bihar (1968). Spec: Plant breeding, genetics; sorghum, castor, pigeon peas, groundnuts, cotton; crop

improvement through plant breeding. Exper: Research Asst (1950-58); Head, Regional Research Sub-Centre (1960-61); Sorghum Botanist and Assoc Coordinator (1961-67); Sorghum Project Coordinator (1967-present); Head, IARI Regional Research Station (1970-present); member, Andhra Pradesh Akademi of Sciences, and Crop Science Society of America; awards: merit increments by Government of India, the C. Subramaniam Gold Medalist, Sir Shanti Swarup Bhatnagar Award (1967); Convener of International Sorghum Symposia at Hyderabad; Editor "Sorghum in the Seventies". Title: Project Coordinator (Sorghum) and Head. Address: Regional Research Station, IARI, Rajendranagar, Hyderabad 500030, A.P., INDIA.

NELSON, Sydney W. (1938). Cit: Rhodesia. Lang: English, Shona. Acad Degrees: BSc Natal (1960); MSc North Carolina State (1968); PhD North Carolina State (1968). Spec: Genetics, statistics, botany; maize, sorghum, potatoes; recurrent selection, genotype x environment interaction. Exper: Research Officer, maize breeding (1960-71); Rockefeller scholar (1964-67); private company maize breeder, seconded to Rhodesian Government (1971-present); 3 international conferences in Africa. Title: Head, Maize Breeding Programme. Address: Salisbury Research Station, Box 8100, Causeway, Salisbury, RHODESIA.

NENE, Yeshwant Laxman (1936). Cit: India. Lang: Hindi, Marathi, English. Acad Degrees: MSc (Agri) Agra (1957); PhD Illinois (1960). Spec: Plant pathology, agronomy; mungbeans, urd beans, pigeon peas, chickpeas; virology, fungicides. Exper: 14 yrs teaching, research, extension; FAO Rice Research Prize (1967). Title: Professor and Head, Dept of Plant Pathology. Address: College of Agric, G. B. Pant Univ of Agric, Pantnagar, U.P., INDIA 263145.

NGHIEM, Nguyen Thi (1949). Cit: Vietnamese. Lang: Vietnamese, English. Acad Degrees: BSc (1972); now working on MSc. Spec: Plant pathology; rice, secondary crops; mycology. Exper: Teaching and research experience. Title: Research Asst. Address: Faculty of Agric, Univ of Cantho, Cantho, SOUTH VIETNAM.

NGUNDO, Benjamin Wambua (1939). Cit: Kenya. Lang: Kikamba, Kiswahili, English. Acad Degrees: BSc Hillsdale College, Michigan (1964); PhD Univ of Nairobi (1973). Spec: Biology, nematology; beans, bananas, rice, pyrethrum; nematode control, crop yield increase. Exper: Research Asst, tropical crops (1964-73); Research Officer in charge of beans, bananas, rice and pyrethrum nematode investigations (1973-74); Senior Research Officer and Head of Plant Pathology and Nematology Division (1974-present); many international conferences. Title: Head, Plant Pathology and Nematology Division. Address: EAAFRO, P.O. Box 30148, Nairobi, KENYA.

NIKNEJAD, Mansour (1932). Cit: Iran. Lang: Persian, English. Acad Degrees: BSc Tehran (1955); MSc Michigan (1958); PhD Michigan (1960). Spec: Plant breeding; barley, wheat (durum); breeding for drought resistance. Exper: Grain legume breeding (1964-68); Assoc Professor, Agronomy (1968-present); member CSSA. Title: Head, Agronomy Dept. Address: College of Agric, Pahlavi Univ, Shiraz, IRAN.

NJERU, Njogu (1943). Cit: Kenya. Lang: Kikuyu, Kiswahili, English. Acad Degree: BSc Makerere Univ (1970). Spec: Crop production; maize, sorghum, millet; nutrition of maize. Exper: Maize Agronomist, research (1970-present); conference on improvement of maize, sorghum, millet, India (1971) and improvement of food crops for Africa and the Near East, Cairo (1973). Title: Maize Agronomist. Address: Agric Research Station, P.O. Box 27, Embu, KENYA.

NJUGUNA, Simeon K. (1938). Cit: Kenya. Lang: Kikuyu, Swahili, English. Acad Degrees: BSc Wisconsin (1965); MSc Tennessee A&M (1966). Spec: Plant breeding; potatoes, maize, soybeans; disease resistance, potato quality. Exper: Research Officer in charge of maize and soybean breeding (1967-70); Head, national potato research project (1970-present); 4 international conferences; travel in Latin America, U.S.A. and U.K. Title: Head, Potato Research Section. Address: National Agric Laboratories, P.O. Box 30028, Nairobi, KENYA.

NOBOA, Arevalo M. (1942). Cit: Ecuador. Lang: Spanish. Acad Degrees: Ing Agr Guayaquil (1969); MS Chapingo, Mexico (1974). Spec: Agronomy, genetics; rice, wheat, barley, oats, maize; genetics and plant breeding. Exper: Asst Engineer (1965-67); training course at CIAT (1968); Chief of rice program, INIAP (1969-present); Professor of Tropical Agric, Univ of Guayaquil (1971); Professor of Genetics and Plant Breeding, Univ of Machala (1974); 4 conferences in Colombia and Mexico. Title: Chief of Rice Program, INIAP. Address: INIAP, Casilla 7069, Guayaquil, ECUADOR.

NOORY, Mohammad Arif (1936). Cit: Afghanistan. Lang: Persian, English. Acad Degrees: Vocational Agric School (1959); College of Agric (1963); North Dakota State (1969). Spec: Agronomy; cereals, especially wheat; plant breeding. Exper: Research and extension, Ministry of Agric (since 1964). Title: President of research and Soils Studies. Address:

Research Dept, Ministry of Agric, Kabul, AFGHANISTAN.

NURENA SANGUINETTI, Marco Antonio (1943). Cit: Peru. Lang: Spanish, English. Acad Degree: BSc Univ Agraria del Norte-Lambayeque (1966). Spec: Crop improvement, cultural practices; rice, maize, sorghum, cassava; crop improvement and cultural practices in the above crops. Exper: Investigations in rice, cassava, maize and sorghum; fertilizer studies. Title: Head, Tulumayo Agric Experiment Station. Address: Estacion Experimental Agraria Tulumayo, Aptdo 78, Tingo Maria, PERU.

OBIHARA, Chikwe Harry (1927). Cit: Nigeria. Lang: Ibo, English, German. Acad Degrees: BSc Leicester (1956); AICTA Imperial College, Trinidad (1958); PhD Reading (1969); Spec: Agronomy, chemistry; maize, rice, cowpeas, cassava, yams; soil fertility, plant nutrition. Exper: Research Officer, soil chemistry (1958-61); Research Officer, soil fertility, tropical root crops and cereals (1961-63); Principal Research Officer, Federal Dept of Agric Research, Nigeria (1963-66); Lecturer in Soil Science, Univ of Sierra Leone (1969-71); Deputy Director of Agric Research, Nigeria (1971-73); Director of Agric Research (1973-present). Title: Director of Agric Research, Federation of Nigeria. Address: Federal Department of Agricultural Research, PMB 5042, Moor Plantation, Ibadan, NIGERIA.

OBORDO, Romeo A. (1934). Cit: Philippines. Lang: Filipino, Spanish, English. Acad Degrees: BSc Philippines (1954);MSc Philippines (1965); PhD Texas A&M (1968). Spec: Agronomy, soil chemistry, statistics; rice, sugarcane, soybeans, corn, roots and tubers; cropping systems, fertilizer studies. Exper: Plantation Manager (1954-57); Instructor in Agronomy (1958-68); Asst Professor of Agronomy (1968-present); Executive Director Rice Applied Research and Training Program (1969-72); Crops Research Director (1972-present); 15 conferences in Asia and U.S.A. Title: Director, Crops Research Division. Address: Philippine Council for Agricultural Research, Los Banos, Laguna, PHILIPPINES.

ODHIAMBO, Thomas R. (1931). Cit: Kenya. Lang: Luo, Swahili, English. Acad Degrees: BA Cambridge (1962); MA and PhD Cambridge (1965). Spec: Insect physiology, pest management; cereals, pulses; insect population control without serious effect on ecology. Exper: Technical Officer (1954-55); Asst Agricultural Officer for Field Entomological Research (1955-59); Entomologist (1962-65); Lecturer in Insect Physiology (1965-67); Reader in Zoology (1967-70); Professor of Entomology (1970-present); Director, ICIPE (1970-present); Trustee of IITA (Ibadan), Egerton Agricultural College, Kenya; Coffee Research Foundation, Kenya; extensive travel in Africa; many scientific conferences and organizations. Title: Director, ICIPE and Professor of Entomology. Address: I.C.I.P.E., P.O. Box 30772, Nairobi, KENYA.

OFORI, Charles S. (1933). Cit: Ghana. Lang: Ewe, English, German. Acad Degrees: Dipl. Landwirt, Hohenheim (1957); Dr Sc Agr Goettingen (1959). Spec: Agric chemistry and plant nutrition, soil chemistry; maize, groundnuts, cassava, cowpeas; fertilizer efficiency and use, maintenance of soil fertility through cropping systems. Exper: Research Officer, Soil Fertility (1960-65); Research Officer (1965-present); Chief, Soil Fertility Division (1960-present); Lecturer, Univ of Science and Technology, Kumasi (1964-65); attended number of FAO and joint FAO/IAEA conferences in West Africa (1968-present). Title: Senior Research Officer, Chief, Soil Fertility Division. Address: Soil Research Institute, Academy Post Office, Kwadaso, Kumasi, GHANA.

OGADA, Festus (1938). Cit: Kenya. Lang: Swahili, English. Acad Degrees: BSc HSIU (1962); MSc Minnesota (1964). Spec: Plant breeding; maize; yield improvement in composite populations. Exper: FAO Panel of Experts, Rome (1969); several international meetings and congresses. Title: Head, Maize Research Section. Address: National Agricultural Research Station, P.O. Box 450, Kitale, KENYA.

OGGEMA, Matthias Wanyama (1941). Cit: Kenya. Lang: Luhya, English, Kiswahili. Acad Degrees: BSc Pakistan (1961); MSc Pakistan (1967); PhD Manitoba (1972). Spec: Plant breeding, cytogenetics, pathology; wheat, barley, triticale, rape; breeding for stem rust resistance. Exper: Research, extension, administration. Title: Deputy Senior Wheat Research Officer and Senior Plant Breeder. Address: Plant Breeding Station, P.O. Njoro, KENYA.

OJOMO, Olatunde Ademola (1937). Cit: Nigeria. Lang: Yoruba, English. Acad Degrees: BSc Ibadan (1962); MSc Nebraska (1966); PhD Ibadan (1972). Spec: Agronomy, plant breeding, genetics; cowpeas, soybeans, okra; yield, protein quantity and quality, mutation breeding. Exper: Teaching agric (1962-64); Research Officer in charge of grain legume improvement (1966-70); Research Fellow and Leader, Grain Legume Commodities (1971-present); post-graduate diploma in plant breeding and genetics, Sualof; 1st FAO/SIDA Seminar, Cairo. Title: Senior Research Fellow. Address: Univ of Ife, Institute of Agric Research and Training, Moor Plantation, PMB 5029, Ibadan, NIGERIA.

OLIVEIRA, Aristoteles F. (1936). Cit: Brazil. Lang: Portuguese, English, Spanish. Acad Degree: BSc Escola de Agronomia de Amozonia (1970). Spec: Agronomy, breeding; beans, soybeans, rice; crop production, disease resistance. Exper: Research Asst, Edible Legume Program, IPEAN, EMBRAPA, Ministry of Agric (1970-present); special training (edible legumes), Turrialba (1972); several national and international meetings and seminars on bean research. Title: Research

Asst, Edible Legume Program. Address: Instituto de Pesquisas Agropecuarias do Norte-IPEAN. Caixa Postal, 48. Secao de Fitotecnia. 66 000 - Belem, Para, BRAZIL.

OLIVEIRA, Eliane A. (1944). Cit: Brazil. Lang: Portuguese, English, Spanish. Acad Degrees: BSc Universidade Federal de Pelotas (1965); MSc Nebraska (1971). Spec: Horticulture, plant pathology; beans; bean breeding for disease resistance. Exper: Research Asst (1966-68); Agric Researcher in charge of bean disease investigations (1968-present). Title: Agric Researcher, Bean Disease Investigations. Address: Instituto de Pesquisas Agropecuarias do Sul, 96.100 Pelotas-RS, BRAZIL.

de OLIVEIRA, Jonas Paes (1943). Cit: Brazil. Lang: Portuguese, Spanish. Acad Degree: BSc Ceara (1966). Spec: Agronomy; potatoes, cotton; variety and fertilizer tests (potato), fiber technology (cotton). Exper: Short courses on fiber technology (1967); Chief of Fiber Laboratory, Federal Univ of Ceara (1970); seed technology (1970); preparation and evaluation of agric projects (1971). Title: Assistant Professor of Plant Breeding. Address: Centro de Ciencias Agrarias, Universidade Federal do Ceara, Caixa Postal 354, 60.000 Fortaleza, Ceara, BRAZIL.

OLOGUNDE, Olatunde Ore (1942). Cit: Nigeria. Lang: Yoruba, English. Acad Degrees: BSc Ahmadu Bello Univ, Zaria (1968); MSc Missouri (1974). Spec: Agronomy; maize, sorghum; crop management and physiology. Exper: Research on sesame and soybeans (1968-72); working on cereals (1974-present). Title: Research Fellow -- Agronomist. Address: Agricultural Research Station, P.M.B. 101, Mokwa via Jebba, NIGERIA.

OMOLO, Eliud O. (1939). Cit: Kenya. Lang: Luo, Swahili, English. Acad Degrees: Dip Agric (EA) (1966); BSc Iowa State (1968); MSc Iowa State (1970). Spec: Plant breeding, genetics; maize; protein quantity and quality. Exper: Asst Maize Breeder (1964-68); Maize Breeder (1968-73); Maize Breeder (1973-present); presented a paper during the East African Cereal Conference in Addis Ababa (1971). Title: Senior Maize Research Officer and Acting Director. Address: National Agricultural Research Station, P.O. Box 450, Kitale, KENYA.

ONATE, Luz Uichanco (1925). Cit: Philippines. Lang: Filipino, English. Acad Degrees: BSc Philippines at Los Banos (1948); MSc (1952); PhD Iowa State (1961). Spec: Human nutrition, foods; sorghum, fruits, vegetables. Exper: Teaching food and human nutrition, prepared 22 extension publications; project leader on several research and development projects on food and nutrition (some overlapping) 1961-74; academic awards: Fulbright scholarship (1949-52); Rockefeller Foundation scholarship (1960). Title: Assoc Professor. Address: Institute of Human Ecology, Univ of the Philippines at Los Banos, College, Laguna, PHILIPPINES.

ONDIEKI, John Jeremiah (1938). Cit: Kenya. Lang: Kisii, Swahili, English. Acad Degrees: BSc Allahabad Univ (1962); MSc McGill (1965). Spec: Agronomy, plant pathology; maize, rice, tea, general crops; epidemiology and control of plant diseases. Exper: Agric Extension Officer (1962-63); Research Plant Pathologist, coffee diseases (1965-67); Plant Pathologist and in charge of Plant Pathology (1967-present); Research Administration (1967-present). Title: Senior Plant Pathologist. Address: National Agric Laboratories, P.O. Box 30028, Nairobi, KENYA.

ONETO, Augustin G. (1945). Cit: Peru. Lang: Spanish, English. Acad Degrees: BSc Lambayeque, Peru (1966); MSc Univ Nacional, Colombia (1970). Spec: Agronomy, plant improvement; rice; fertilizers, herbicides. Exper: Asst Professor and Chief of Rice Investigations, Universidad Nacional Pedro Ruiz Gallo (1970-74). Title: Professor. Address: Calle 8 de Octubre 471, Lambayeque, PERU.

ONOCHIE, Benedict Etuka (1926). Cit: Nigeria. Lang: Ibo, Hausa, Hebrew, English. Acad Degrees: BSc Univ of Ibadan (1957); MSc Hebrew Univ (Israel) (1961); PhD Wisconsin (1970). Spec: Agronomy; cassava, yams, cowpeas, rice; weed control, mechanization of planting and harvesting yams and cassava. Exper: Professor in tropical crops and farm management, Ibadan (1949-52); Extension Agronomist, crops (1961-64); Lecturer in Agronomy of Tropical Crops, Univ of Ife (1964-present); 8 conferences in West Africa and U.S.A. Title: Senior Lecturer. Address: Plant Science Department, Univ of Ife, Ile-Ife, NIGERIA.

ORELLANA, Jose (1941). Cit: Ecuador. Lang: Spanish, English. Acad Degree: Engineer Central Univ of Ecuador (1968). Spec: Plant breeding, cereal technology; wheat, barley, oats; wheat-quality tests, and tests to determine germination and vigor of wheat, barley, oats, rice, and corn seeds. Exper: Research Asst, National Wheat Commission (1964-68); in charge of wheat quality lab and member of cereal breeding staff, National Institute of Agricultural Research (INIAP) (1968-73); Technical Supervisor in Seed Company. Title: Technical Supervisor, "EM Semillas del Ecuador". Address: EM Semillas del Ecuador, P.O. Box

430, Quito, ECUADOR.

ORLANDO, Carlos Alfredo (1946). Cit: Ecuador. Lang: Spanish. Acad Degree: Ing Agr Manabi, Ecuador (1971). Spec: Food crops production; oilseed crops, maize, sorghum; production technology. Exper: Research Asst, oilseed program, soybean investigation (1970-73); Agronomist, diversification program (1973-present). Title: Agronomist, Santa Elena Peninsular Development Program. Address: Comision de Estudios para el Desarrollo de la Cuenca del Rio Guyas (CEDEGE), Guayaquil, Aptdo 6722, ECUADOR.

OROZCO, Silvio H. (1929). Cit: Colombia. Lang: Spanish. Acad Degrees: BSc Univ Nacional Agrop (1954); MSc Universidad ICA (1969). Spec: Genetics, plant breeding; soybeans, beans; varietal improvement. Exper: Crop improvement. Title: Regional Director, Grain Legumes. Address: Centro Nacional de Investigaciones, ICA, Aptdo Aereo 233, Palmira, COLOMBIA.

ORTEGA, Simon (1935). Cit: Venezuela. Lang: Spanish, Portuguese, English. Acad Degrees: Ing Agr, Sao Paulo (1959); MSc Sao Paulo (1966). Spec: Plant breeding; beans, soybeans, cowpeas. Exper: Research Officer, beans, cowpeas, soybeans (1960-69); Research Officer, National Bean Program (1970-present). Title: Research Officer, Ing Agron II. Address: National Bean Program, Centro Nacional de Investigaciones Agropecuarias, Maracay, VENEZUELA.

ORTEGA D., Maria Luisa (1927). Cit: Mexico. Lang: Spanish, English. Acad Degrees: BSc Colegio Preparatorio Jalapa (Mexico) Ver (1944); MSc Instituto Politecnico Nal ENCB (1953); PhD Instituto Politecnico Nal (1965). Spec: Biochemistry; dry beans, corn, cassava, potatoes; protein quality and quantity, plant physiology, soil biochemistry. Exper: Research Asst (1949-51); quality control (1951-57); Professor, IPN (1961-63); Professor, Colegio de Post-graduados (1964-present). Title: Research Professor. Address: Colegio de Postgraduados, ENA, Chapingo, MEXICO.

OSORIO GARCIA, Luis A. (1933). Cit: Nicaragua. Lang: Spanish, English. Acad Degree: PA Nicaragua (1957). Spec: Agric extension; basic grains; rural cooperatives, rural youth. Exper: Extension Agent (1957-60); Extension Supervisor (1960-66); Director of Extension (1966-present). Title: Director of Extension. Address: Km 12, Las Mercedes, Aptdo 453, Managua, NICARAGUA.

OSWALT, Dallas L. (1927). Cit: U.S.A. Lang: English, Bura. Acad Degrees: BSc Purdue (1950); MSC Purdue (1958); PhD Purdue (1973). Spec: Agronomy, Education; grain sorghum, forage crops; protein quality and quantity, crop production, education. Exper: Vocational agric teacher (6 yrs); soils teaching asst (2 yrs); teaching and administration, Nigeria (11 yrs); sorghum testing, Indiana (5 yrs); Asst Director, Purdue/AID Sorghum Project (1970-present). Title: Research Agronomist. Address: Purdue/AID Sorghum Project, Agronomy Dept, Life Science Bldg, Purdue Univ, Lafayette, Indiana 47907, U.S.A.

OTOUL, Emile (1929). Cit: Belgium. Lang: French. Acad Degrees: BSc Gembloux (1949); PhD Gembloux (1952). Spec: Agronomy, biochemistry; tropical beans; cotton, tuber crops, cereals; protein quantity and quality. Exper: Research Asst, rubber, INEAC, Yangambi, Zaire (1954-60); in charge of biochemistry laboratory (amino acids) Department of Tropical Agric, Faculty of Agronomy, Gembloux. Title: Chef de Travauz. Address: Faculte des Sciences Agronomiques de l'Etat, Chaire de Phytotechnie des Regions Chaudes, 5800 Gembloux, BELGIUM.

OYEKAN, Peter Oyegbade (1938). Cit: Nigeria. Lang: Yoruba, Engoish. Acad Degrees: BSc Wisconsin (1968); MSc Wisconsin (1970); PhD Wisconsin (1971). Spec: Plant pathology; maize, cowpeas; fungus diseases and their control, ecology of soil-borne pathogens. Exper: Research Asst, pea root rot (1968-71); teaching asst, ecology of soil-borne pathogens (1970-present); Research Fellow, Institute of Agric Research and Training (1971-present); teaching (1971-72); member, APS, International Society for Plant Pathology. Title: Research Fellow. Address: Institute of Agric Research and Training, PMB 5029, Moor Plantation, Ibadan, NIGERIA.

PADMANABHAN, Suchindrum Y. (1916). Cit: India. Lang: Tamil, English, Hindi, Oriya. Acad Degrees: BSc (Hons) Madras (1937); Assoc IARI (1939); DSc Utkal (1967). Spec: Plant pathology, mycology; rice, sugarcane, brinjals, water hyacinth, cowpeas; breeding for disease resistance, rice blast disease, Helminthosporium disease of rice. Exper: Senior Research Asst (1940-43); Mycologist (1943-46); Asst Mycologist, Sugarcane (1947); Mycologist, CRRI (1947-66); Director, CRRI, ICAR (1966-present); President, Indian Phytopathological Society (1973); 9 conferences in Philippines, Sri Lanka, Iran, Surinam, USSR, Nigeria and Bangladesh. Title: Director. Address: Central Rice Research Institute, Cuttack-6 (Orrissa), INDIA 753006.

PAIVA, Jose Braga (1932). Cit: Brazil. Lang: Portuguese. Acad Degrees: BSc Ceara (1962); MSc Vicosa (1968). Spec: Agronomy, plant breeding; cowpeas, soybeans, broad beans; introduction, study, selection of varieties. Exper: Teacher (1963-65); Chief of Experimental Farm (1964-66); Head of Bean Program (1964-present); Head of Food Crops Program Ceara State (1968-present); Head of Fertilizer Research Program, Ceara (1971-present). Title: Asst Professor. Address: Centro de Ciencias Agrarias, Universidade Federal do Ceara, Caixa Postal 354, Fortaleza, Ceara, BRAZIL.

PANDEY, Ram Krishna (1941). Cit: India. Lang: Hindi, English. Acad Degrees: BSc Agra University (1961); MSc Agra (1963). Spec: Agronomy, weed control; soybeans, sunflowers, wheat, sorghum, phaseolus beans, pearl millet; qualitative and quantitative improvement in the production of crops by weed control techniques. Exper: Research Asst (1964-68); Asst Agronomist (weed control) (1968-present); training in weed science at Oxford (1972); summer institute in weed science IARI, New Delhi. Title: Asst Agronomist (Weed Control). Address: Indian Grassland and Fodder Research Institute, Jhansi, (U.P.), INDIA.

PARK, Keun Y. (1933). Cit: Korea. Lang: Korean, English, Japanese. Acad Degrees: BSc Seoul (1956); PhD Seoul (1974). Spec: Breeding, agronomy; soybeans, corn, sweet potatoes; dry matter production, high protein soybeans. Exper: Research Asst, soybeans and corn (1960-64); Senior Researcher, corn, soybeans and sweet potatoes (1964-68); Division Chief, Upland Crop Research, soybeans, corn, sweet potatoes (1969-present); 3 workshops and 2 observation trips in Asia (1967-present). Title: Chief, Upland Crop Research Division. Address: Crop Experiment Station, Office of Rural Development, Suwon 170, KOREA.

PARODI, Patricio C. (1936). Cit: Chile. Lang: Spanish, English. Acad Degrees: Ing Agric Catholic Univ of Chile (1958); MSc Purdue (1963); PhD Purdue (1969). Spec: Genetics, plant breeding, plant pathology; wheat, triticale, field beans, safflower; yield components and protein content. Exper: Wheat Breeder (1958-72); Post-doctoral Research Assoc, Purdue (1969); Professor and Head. Dept of Plant Science (1972-present); attended 18 conferences, published 28 papers, traveled in Europe, Africa, North and South America. Title: Professor and Head, Dept Agric. Address: Catholic Univ of Chile, Casilla 114-D, Santiago, CHILE.

PARTOHARDJONO, Soetjipto (1939). Cit: Indonesia. Lang: Indonesian, English. Acad Degrees: BSc Academy of Agric (1962); Ir, Bogor Institute of Agric (1973). Spec: Agronomy; rice, corn, soybeans, peanuts, cassava; fertilizer use, cultural practices, water management. Exper: Research staff, rice (1962-74); 2 conferences in Asia. Title: Researcher on Rice Project. Address: Central Research Institute for Agriculture, Jalan Merdeka 99, Bogor, INDONESIA.

PATEL, Amboobhai Umedbhai (1930). Cit: India. Lang: Gujarati, Hindi, English. Acad Degrees: BSc Bombay (1951); MSc Cornell (1959); PhD Cornell (1961). Spec: Agric extension, agric education; maize, roots and tubers;rural development. Exper: High school teacher (1951-54); Graduate Asst (1954-58); Asst Professor of Agric Extension (1961-64); Professor of Agric Extension (India) (1964-70); Senior Lecturer in Agric Extension in Nigeria (1970-present). Title: Senior Lecturer in Agric Extension. Address: Department of Agric Economics and Extension, Univ of Ibadan, Ibadan, NIGERIA.

PATEL, Prabodh N. (1933). Cit: India. Lang: Gujarati, Hindi, English. Acad Degrees: BSc Gujarat (1955); MSc Gujarat (1957); MSc Wisconsin (1959); PhD Wisconsin (1962). Spec: Plant pathology, botany; grain legumes, vegetables; breeding for disease resistance, epidemiology. Exper: Research Asst (1957-61); Post-doctoral Research Assoc, Univ of Wisconsin (1961-65); Reader & Head of Plant Pathology, Univ of Udaipur (1965-67); Plant Bacteriologist (1967-71); Senior Plant Bacteriologist (1971-present); Director, Summer Institute in Plant Bacteriology (1972); 10 yrs teaching. Title: Senior Plant Bacteriologist. Address: Division of Mycology & Plant Pathology, Indian Agric Research Institute (IARI), New Delhi-12, INDIA.

PATEL, Vallabhbhai J. (1932). Cit: India. Lang: Gujarati, Hindi, English. Acad Degree: BSc Gujarat Univ (1955). Spec: Plant Breeding, agronomy, plant pathology; wheat, other cereals; evolving high yielding disease resistant, better quality dwarf wheats. Exper: 19 yrs experience in research on plant breeding and agronomy; 9 months training in wheat breeding and agronomic practices at Kansas State Univ, U.S.A. Title: Wheat Breeder. Address: Gujarat Agric Univ, Junagadh Campus, Junagadh, INDIA.

PATERNIANI, Ernesto (1928). Cit: Brazil. Lang: Portuguese, English, Spanish. Acad Degrees: BSc Sao Paulo (1950); PhD Sao Paulo (1954). Spec: Genetics, plant breeding; maize; yield, protein quality, agronomic characters. Exper: Research on maize (1952-present); teaching genetics and plant breeding (1952-present); Director, Institute of Genetics (1974); extensive travel, Latin America. Title: Head. Address: Dept of Genetics, ESALQ, C.P. No 83, 13.400 Piracicaba, Sao Paulo, BRAZIL.

PATHAK, Sharada (1941). Cit: India. Lang: Hindi, English, French. Acad Degrees: BSc Gorakhpur (1961); MSc Kanpur (1971). Spec: Agricl extension; wheat, paddy, potatoes, maize; agricl extension and development, agronomy. Exper: Asst Development Officer, Agric (1961-64); Research Asst, Extension (1964-72); Field Officer (1972-74); Asst Extension Agronomist (1974-present); training in writing and production of written information materials. Title: Asst Extension Agronomist. Address: Jute Agricl Research Institute, Indian Council of Agric Research, Nilganj, Barrackpore, West Bengal, INDIA.

PATTANAYAK, Chandra Mohan (1937). Cit: India. Lang: Oriya, Hindi, Bengali, English. Acad Degrees: BSc Utkal (1959); MSc Indian Agric Univ (1961); PhD Wisconsin (1968). Spec: Plant breeding, genetics, experimental statistics; sorghum, maize, pearl millet, and wheat; applied breeding in crop plants. Exper: Research Asst, sorghum and pearl millet (1961-63); soil conservation training course (1964); Research Asst, temperate grains (1965-68); Research Assoc, sorghum (1968); Assoc Professor of plant breeding, research on sorghum breeding (1968-71); Project Coordinator, Seed Development (1972-present). Title: Project Coordinator, Seed Development. Address: c/o Hi-Bred (India) Private Limited, 8-1-39 Tolichowki, Hyderabad 500008, A.P., INDIA.

PAYAK, Madan Mohan (1928). Cit: India. Lang: Rajasthani, Hindi, English. Acad Degrees: BSc Birla (1947); MSc Banaras (1949); PhD Poona (1958). Spec: Mycology, plant pathology; maize, wheat; uredinales, fungus spore morphology, breeding for crop resistance. Exper: Research Asst, Ergot Research Scheme (1959-52); Demonstrator, Dept of Botany, Univ of Poona (1953-54); Research Fellow, National Institute of Sciences of India (1955-57); Asst Mycologist (1958-61); Asst Professor of Plant Pathology (1961-64); Plant Pathologist (1965-70); Maize Pathologist (1970-present); 8 conferences in Philippines, Thailand, Malaysia, U.S.A. (1966-present); included in "Gallery of Contemporary Noted Mycologists" (Mycopathologia, 1965). Title: Maize Pathologist (Assoc Project Coordinator). Address: Division of Mycology and Plant Pathology, Indian Agricl Research Institute (IARI), New Delhi-110012, INDIA.

PAYNE, Horace W. (1927). Cit: Jamaica. Lang: English. Acad Degrees: BSc British Columbia (1953); MSc Cornell (1961). Spec: Agronomy, soils; tropical root crops (yams, sweet potatoes), groundnuts, maize; soil and water conservation, irrigation, use of fertilizer. Exper: Goodwill Livestock Manager, Dominica (1953); Land Use Officer, Jamaica (1953-58); Irrigation & Drainage Research, Jamaica (1960-61); Executive Agricl Officer, Yallahs Valley Land Authority (1961-63); Soil and Land Use Survey, Trinidad (1963-64); Leeward Islands Agronomist, Antigua (1964-68); West Indies Univ, Agronomist, Jamaica (1968-present). Title: Agronomist. Address: Univ of West Indies, Mona, Kingston 7, JAMAICA.

de la PENA, Ramon S. (1936). Cit: U.S.A. Lang: Pangasinan, English, Ilocano, Tagalog, Spanish. Acad Degrees: BSc Philippines (1958); MSc Hawaii (1964); PhD Hawaii (1967). Spec: Agronomy, plant physiology; rice, taro, yams, cassava, sorghum, maize; crop management, fertilizer use, weed control, extension. Exper: Research and teaching positions in Philippines, Hawaii (1958-72); Asst Specialist in Agronomy (1972-present); Director, Office of Economic Development, Kauai, Hawaii (1973-74); international meetings and symposia on tropical root and tuber crops, weed science, rice training and program review; author and co-author of over 15 scientific papers. Title: Asst Specialist in Agronomy: Address: Kauai Branch Experiment Station, Univ of Hawaii, Kapaa, Hawaii 96746, U. S.A.

PENADOS GOZALBO, Mario D. (1924). Cit: Guatemala. Lang: Spanish, English, French. Acad Degrees: BSc Politecnic School (1946); Ing Agron, San Carlos (1955). Spec: Agronomy, biology, ecology; maize, buckwheat, wheat; protein quality and quantity, fertilizer use, breeding, biologic fermentation. Exper: Research Officer in charge of buckwheat investigations (1954-59); Assoc Professor of Biology and Ecology, Univ San Carlos (1959-69); author of several technical studies in maize, buckwheat, and methanic fermentation; ten international conferences; Regional Chief in National Plan Development (1971-present). Title: Regional Chief, Region III, DIGESA. Address: Centro Regional de Servicios Agricolas, 6ta C, 6-75, Zona 1, Retalhuleu, GUATEMALA.

PEREIRA, Araken S. (1917). Cit: Brazil. Lang: Portuguese, English. Acad Degree : Ing Agron Luiz de Queiroz (1940). Spec: Plant breeding; cassava; crossing, self-pollination, selection of new cultivars, chemical and sensorial analyses of the plant. Exper: Research Asst (1942-69); invited by ACARESC as Agriculturist Assessor, S.C., Brazil (1967); meeting with agric engineers from Sao Paulo and Andean countries (1970). Title: Chief, Root and Tuber Section. Address: Instituto Agronomico de Campinas, Av Barao de Itapura, 1481, Caixa Postal 28, Campinas, Sao Paulo, BRAZIL.

PEREZ R., Carlos N. (1944). Cit: Guatemala. Lang: Spanish. Acad Degrees: P A National School of Agriculture (1964). Spec: Plant science; maize; plant breeding, protein quality. Exper: Asst in Entomology (1965); research in maize and maize cultivation; Head, Technical Experiment Station for 3 yrs; maize improvement training at CIMMYT. Title: Technical Investigator, Maize Program, ICTA. Address: Centro Experimental Agricola ICTA, Chimaltenango, GUATEMALA.

P

PIERRE, Reginald Emmanuel (1932). Cit: United Kingdom. Lang: English. Acad Degrees: BSc Imperial College Trop Agric (1958); MSc Cornell (1964); PhD Cornell (1966). Spec: Plant pathology; grain legumes, groundnuts; disease control and resistance, yield potential varieties. Exper: Plant Protection Officer (1958-60); Lecturer in crop production (1960-62); Research Assoc (1966); Research Fellow (1966-72); Senior Research Fellow (1972-present). Title: Plant Pathologist. Address: Faculty of Agriculture, P.O. Box 113, University of the West Indies, Kingston 7, JAMAICA, W.I.

PIETRARELLI, Jose Renato (1926). Cit: Argentina. Lang: Spanish, Italian, Portuguese and some English. Acad Degree: Instituto Agronomico de Macerata-Italia (1945). Spec: Tropical crops; peanuts, soybeans. Exper: Peanut research. Title: Agronomist. Address: Estacion Experimental Agropecuaria de Manfredi-INTA (Pcia. Cba.), ARGENTINA.

PILLAI, Keerikad Gopalakrishna (1942). Cit: India. Lang: Malayalam, English, Hindi, Tamil, Russian. Acad Degrees: BSc Kerala, India (1961); MSc Kerala (1967); PhD Indian Agric Research Institute, New Delhi (1971). Spec: Agronomy, soil science, plant physiology, and agric statistics; rice, cassava, coconut, wheat, sorghum; fertilizer saving techniques, slow-release fertilizers, herbicides, and cultural management. Exper: Research Asst, cassava, rice (1962-65); Asst Lecturer in Agronomy (1967-68); Senior Lecturer in Agronomy (1971-72); Agronomist (1972-present). Title: Agronomist. Address: All-India Coordinated Rice Improvement Project, Rajendranagar, Hyderabad 500 030, AP, INDIA.

PITMAN, John H. N. (1925). Cit: U.K. Lang: English. Acad Degrees: BA Oxford (1949); MA Oxford (1951); Dip Trop Agric, Trinidad (1953). Spec: Agronomy and animal breeding; coconuts, bananas, sorghum, peanuts; agricultural extension. Exper: Agric Officer, sorghum, millet, peanuts, Ghana (1950-55); Regional Agric Officer, as above plus yams and maize (1955-61); Divisional Agric Officer, Sarawak, East Malaysia (1962-67); Director of Agric, Tonga, South Pacific (1967-72). Title: Team Leader, Agric Extension Advisory Team. Address: Agric Advisor, Overseas Development Administration, Eland House, Stag Place, London, SW I E 5DH, ENGLAND.

POEHLMAN, John M. (1910). Cit: U.S.A. Lang: English. Acad Degrees: BSc Missouri (1931); PhD Missouri (1936). Spec: Agronomy, genetics, plant breeding; mungbeans, barley, wheat, oats, rice; breeding and genetic evaluation of mungbeans species, disease resistance, climatic adaptation, barley breeding 2-row winter malting. Exper: Evaluation of germplasm, world collections, international mungbean nursery (3 yrs); 35 yrs of cereals experience in breeding, genetics, agronomy; taught plant breeding to graduate and undergraduate students; Research Advisor to Orissa Univ, India (2 yrs). Title: Professor of Agronomy. Address: Dept of Agronomy, 208 Waters Hall, University of Missouri, Columbia, Missouri 65201, U.S.A.

POEY, Federico R. (1933). Cit: U.S.A. Lang: Spanish, English. Acad Degrees: BSc Missouri (1954); MSc Chapingo, Mexico (1971); PhD Chapingo, Mexico (1974). Spec: Plant protein improvement maize; improving protein quality and quantity in association with yield. Exper: Maize breeding and seed production in Semillas Poey in Cuba (1954-63); maize breeding and seed production in Mexico (Semillas Poey now associated with Northrup King & Co); attended agronomy and nutritional conferences in Latin America and U.S.A. presenting contributions on opaque-2 related research. Title: Director of Research, Semillas Poey, S.A., Mexico City. Address: Semillas Poey, S.A., Liverpool # 143-102, MEXICO 6, D.F.

POLLMER, Wolfgang Gerhard (1926). Cit: Germany (Fed Rep). Lang: German, English. Acad Degrees: Ing Agr Halle (1951); Dr Agr Munchen (1956); Habil, Hohenheim (1963). Spec: Plant breeding; maize; improvement of protein quality and quantity of maize and yield potential. Exper: Plant Breeding Asst, wheat, barley, rye, oats, maize, beets, grasses, rape, alfalfa (1951-58); Maize Breeder, in Charge of Station, 4 commercial varieties (patented) (1959-present); Executive Director, plant production (1971-72); Professor, plant breeding (1963-present); Head, Division of Plant Breeding II, Hohenheim (1967-present); Vice President, German Maize Committee (1973-present); attended international conferences in Europe, Africa, America. Title: Professor of Plant Breeding. Address: Universitat Hohenheim, Abt. Pflanzenzuchtung II, Postfach 106, D-7000 Stuttgart 70, GERMANY.

POMPEU, Antonio S. (1938). Cit: Brazil. Lang: Portuguese, Spanish, English. Acad Degrees: Eng Agr, Piracicaba (1961); PhD Cornell (1971). Spec: Plant breeding; beans, peanuts; disease resistance, protein quality and quantity. Exper: Grain legume breeder (1961-present). Title: Asst in Genetics. Address: Genetics Dept, Instituto Agronomico, CP 28, Campinas, 13100. BRAZIL.

PONCE, Jose Angel (1949). Cit: Nicaragua. Lang: Spanish. Acad Degree: Ing Agron National School of Agric (1973). Spec: Beans, cowpeas, soybeans, and pigeon peas. Exper: Variety tests, Ministry of Agric, one yr; now in charge of improvement program of above crops. Address: Apartado 453, Escuela Nacional de Agricultura y Ganaderia, Managua, NICARAGUA.

PRADILLA, Alberto F. (1934). Cit: Colombia. Lang: Spanish, English, French. Acad Degrees: MD Univ Nacional Bogota, Colombia (1957); Ped Univ del Valle (1961); Harvard (1963). Spec: Metabolism, genetics; maize, beans; protein quality and quantity. Exper: Asst Professor of Pediatrics (1964-68); Assoc Professor (1968-73) Universidad del Valle; Chairman, Dept of Pediatrics (1970-73); Visiting Scientist, CIAT (1972-73); Visiting Professor, Michigan State Univ (Fall 1971); received John D. Rockefeller Award (1971). Title: Advisor in Nutrition, Applied Nutrition Div INCAP. Address: Apartado 1188, Guatemala City, GUATEMALA.

del PRADO, Frank Albert (1925). Cit: Netherlands. Lang: Dutch, English, German, Spanish, French. Acad Degrees: BSc Howard Univ (1949); MSc Minnesota (1951). Spec: Plant pathology, pesticides, plant quarantine; rice, vegetables; pesticide ordinance, quarantine legislation, quality inspection, plant production. Exper: Research Asst (1949-51); Research, Plant Pathologist (1951-60); Head, Plant Protection and Production Div, Ministry of Agric, Dutch Guiana (1966-67); Caribbean Food Crops Society, Chairman (1966-67); Chairman, Caribbean Plant Protection Commission, FAO (1968-70); conferences in Europe, U.S.A. and South America; FAO Specialist to Cuba (1971). Title: Head, Plant Protection and Production Division. Address: Surinam Agric Experiment Station, P.O. Box 160, Paramaribo, SURINAM.

PRAKASARAO, Ponnaluri Surya (1934). Cit: India. Lang: Telugu, English, Hindi, Oriya, Tamil. Acad Degrees: BSc Presidency College, Madras (1956); MA Madras Univ (1960); PhD Utkal Univ (1973). Spec: Entomology; rice; insect ecology, varietal resistance, chemical, biological and integrated control of crop pests. Exper: Lecturer in zoology (1958-59); Research Asst, rice entomology (1961-65); Biological Control Officer (1966-67); Junior Entomologist (1967-present); published 26 research papers. Title: Junior Entomologist. Address: Central Rice Research Institute, CRRI, Cuttack, INDIA.

PRASAD, Rajendra (1936). Cit: India. Lang: Hindi, English, Urdu. Acad Degrees: BSc Agra Univ (1954); MSc Agra (1956); PhD Mississippi State (1961). Spec: Agronomy, soil fertility; rice, wheat, sugarcane, maize, sorghum, millet; fertilizer use and characteristics, moisture conservation techniques. Exper: Asst Professor, Agronomy (1963-64); Agronomist, All India Coordinated Agronomic Experimens Scheme (1964-73); graduate instruction program in agronomy (1973-present). Title: Professor of Agronomy. Address: Div of Agronomy, IARI, New Delhi 110012, INDIA.

de la PUENTE, Fermin Francisco (1953). Cit: Peru. Lang: Spanish, English. Acad Degrees: BSc Agrarian Univ (1959);

MSc Wisconsin (1966); PhD Wisconsin (1972). *Spec*: Agronomy, horticulture; potatoes, sweet potatoes; potato breeding. *Exper*: Research Asst (1960-64); Head, National Potato Program (1967-72); Head, National Potato Research Program (1973-present); conferences, U.S.A., Holland, Latin America; Professor, Catholic Univ, Lima. *Title*: Head, Potato Research Program. *Address*: P.O. Box 2791, Ministry of Agric, Lima PERU.

PUSHPAVESA, Suvit (1931). *Cit*: Thailand. *Lang*: Thai, English. *Acad Degrees*: BSc Kasetsart Univ (1954); MSc Univ of Philippines (1971). *Spec*: Plant breeding; rice; breeding of photoperiod sensitive and glutinous rice. *Exper*: Research in rice varietal improvement (1954-62); Superintendent of Pimai Rice Experiment Station (1962-67); Rice Breeder (1967-present). *Title*: Plant Breeder. *Address*: Rice Division, Dept of Agric, Banghen, Bangkok-9, THAILAND.

QUANSAH, Joseph Emmanuel (1939). Cit: Ghana. Lang: Fanti, English. Acad Degrees: BSc Ghana (1964); MSc Wales (1968); PhD Wales (1970). Spec: Plant breeding, genetics; rice; breeding for blast resistance, yield, fertilizer use. Exper: Delegate International Rice Committee Conference (1971). Title: Research Officer-in-Charge. Address: Crops Research Institute, P.O. Box 52, Tamale, GHANA.

QUEBRAL, Florendo C. (1931). Cit: Philippines. Lang: Filipino, English. Acad Degrees: BSA Philippines (1955); MS Philippines (1962); PhD Illinois (1966). Spec: Plant pathology; soybeans, mungbeans, peanuts, cowpeas, beans; epidemiology and control. Exper: Asst Professor of Plant Pathology; several national and international food conferences; current research on diseases of field legumes; published 30 technical and popular articles on plant diseases. Title: Chairman of Plant Pathology Department and Extension Coordinator. Address: Univ of Philippines, College of Agric, College, Laguna, PHILIPPINES.

de QUEIROZ, Genario Marcolino (1943). Cit: Brazil. Lang: Portuguese, Spanish. Acad Degree: BSc Ceara (1967). Spec: Agronomy; beans, cassava; castor beans; variety trials, population density, fertilizer usage. Exper: Short courses on rural credit (1969) and storage and handling of grain (1971); Chief of the Agric Residence of Sao Benedito, Ceara (1968-69); in charge of inspection and supply of agric materials sales outlets (1969-70); Asst for Project on Oil Crops (1970-71); Research Asst (1972). Title: Research Asst. Address: Escola de Agronomia, Universidade Federal do Ceara, Caixa Postal 354, Fortaleza, Ceara, BRAZIL.

de QUEIROZ, Manoel A. (1942). Cit: Brazil. Lang: Portuguese. Acad Degrees: Eng Agr Superior School of Agric, Pernambuco (1967); MSc Superior School of Agric, Luiz de Queiroz, Piracicaba (1969). Spec: Plant breeding; maize, onions, tomatoes. Exper: Improvement of corn, onions, and tomatoes; Head, Experimental Station of Jatina (1970-present); worked on half-sib selection in maize and obtaining composite varieties of maize and onions. Title: Head, Experimental Station of Jatina. Address: Instituto de Pesquisas Agronomicas, Cx Postal 1022, 50000 Recife, BRAZIL.

QUINTANA, Romeo Urdaneta (1933). Cit: Philippines. Lang: Tagalog, Visayan, English. Acad Degrees: BSc Philippines (1957); MSc Hawaii (1966); PhD Texas A&M (1971). Spec: Agronomy, crop physiology, soil fertility; sorghum, soybeans, peanuts, rice, maize; crop management, cultural requirements and fertilizer use. Exper: Producer, rice and upland crops (1948-58); Instructor, agronomy (1957-59); Chief, Farm Crops and Field Legume Section (1965); Chief, Management, Sorghum Section (1971-present); Team Leader, sorghum and maize, Philippine Council for Agric Research (1973); Asst Professor, Agronomy (1971-present); Chief, Division of Farm Crops and Plant Breeding (1973-present); four conferences in U.S.A. Title: Asst Professor and Chief, Division of Farm Crops and Plant Breeding. Address: UP College of Agric at Los Banos, Laguna, PHILIPPINES.

QURESHI, Sardar A. (1921). Cit: Pakistan. Lang: Urdu, English. Acad Degrees: BSc Lyallpur (1943); MSc Lyallpur (1953); PhD Washington State (1959). Spec: Plant breeding; wheat, corn, sorghum, beans; breeding varieties efficient at minimal inputs, specific wheat adaptation. Exper: Participation in international wheat symposium, Canada (1958), Cairo (1963). Title: Cereal Botanist. Address: Punjab Agric Research Institute, Lyallpur, PAKISTAN.

QUYEN, Nguyen Huu (1933). Cit: Vietnam. Lang: Vietnamese, French, English. Acad Degrees: BS Saigon (1964); MSc (1972); PhD wisconsin (1973). Spec: Agronomy, plant breeding, genetics; soybeans. Exper: Research Asst (1969-73); Director, Experiment Station (1965-69); Chairman, Agronomy Dept, Univ (1973-present). Title: Chairman, Department of Agronomy. Address: Univ of Cantho, Can Tho, SOUTH VIETNAM.

RADLEY, Richard William (1938). Cit: U.K. Lang: English. Acad Degrees: BSc Nottingham (1959); PhD Nottingham (1963). Spec: Crop science; soybeans, potatoes; agronomy, plant breeding. Exper: National College of Agric Engineering, Silsoe, Bedford (1963-65) and (1968-70); Univ West Indies (1965-68); Univ of Makerere, Uganda (1970-72); NCAE (1972-present). Title: Head, Dept of Agric Production Technology. Address: National College of Agric Engineering, Silsoe, Bedford, ENGLAND.

RAHEJA, Ashok Kumar (1941). Cit: India. Lang: Punjabi, English, Hindi. Acad Degrees: BSc Poona, India (1962); MSc Hawaii (1965); PhD Minnesota (1970). Spec: Entomology, microbiology; cowpeas, groundnuts, other legumes; insect control (chemical & biological), insect pathogens. Exper: Research Asst, Minnesota (1965-70); research/teaching, Institute for Agric Research, Ahmadu Bello Univ, Nigeria (1970-present). Title: Legume Engomologist. Address: Institute for Agric Research, Ahmadu Bello Univ, P.M.B. 1044, Samaru, Zaria, NIGERIA.

RAHMAN, Abdul (1945). Cit: Afghanistan. Lang: Pushtoo and Dari, English. Acad Degrees: BSc Kabul Univ (1967); MSc Arizona (1973). Spec: Agronomy; wheat, corn, rice; water utilization. Exper: Worked as technician for 4 yrs at Darul Aman Research Station. Title: Director, Darul Aman Research Station. Address: Research and Soil Science Dept, Ministry of Agric and Irrigation, Kabul, AFGHANISTAN.

RAI, Tej Bahadur (1942). Cit: India. Lang: Hindi, English, Swahili. Acad Degrees: Banaras Hindu Univ, India (1962); MSc Banaras (1964); PhD Banaras (1970). Spec: Plant physiology, agronomy; soybeans, cowpeas, green gram, pigeon peas; legume agronomy and physiology, protein quality. Exper: Asst Plant Physiologist (1964-65); Research Fellow, Ministry of Health in India (1965-68); Legume Agronomist, Agric Research Institute, (1972-present). Title: Head, Legume Section. Address: Agric Research Institute, Ilonga, P/Bag, Kilosa, TANZANIA.

RAJBHANDARY, Gopal R. (1935). Cit: Nepal. Lang: English. Acad Degrees : BSc (1958); MSc (1962). Spec: Plant breeding; maize, sorghum; protein quantity and quality. Exper: IACP Workshops in Pakistan and India; advanced training at Purdue and CIMMYT; Plant Breeder, Parwanipur Agric Station. Title: Coordinator, National Maize Program. Address: Rampur Agricultural Station, Rampur, NEPAL.

RAMANUJAM, Srinivasa (1925). Cit: India. Lang: Tamil, English, French, Hindi. Acad Degrees: BSc Madras (1945); Assoc IARI New Delhi (1950); MSc Wisconsin (1959). Spec: Botany, genetics, plant breeding; grain legumes; coordination of research on pulses. Exper: Research Asst (1951-55); Asst Cytogeneticist (1955-59); Geneticist (1959-67); Professor of Genetics (1968); Project Coordinator (1968-present). Title: Project Coordinator (Pulses). Address: All India Coordinated Research, IARI, New Delhi-12, INDIA.

RAMIREZ A., Ignacio (1925). Cit: Chile. Lang: Spanish, English, French. Acad Degrees: Ing Agron Chile (1948); MSc (1936) and PhD (1969) Washington State. Spec: Plant breeding and genetics; wheat and other small grains; breeding of spring, winter and facultative wheat varieties. Exper: Collaborator, International Rust Nurseries Program, Rockefeller Foundation and USDA (1950-present); CIMMYT one yr as trainee (1955); Cooperator, International Spring Wheat Yield Nurseries, Nebraska Agric Expt Station, (1960-present); attended numerous international meetings on cereals, especially wheat, in Latin America and was chairman or leader of several of them. Title: Head, Small Grains Improvement Program. Address: Instituto de Investigaciones Agropecuarias, Casilla 5427, Santiago, CHILE.

RANA, Mohammad Sarfraz Khan (1942). Cit: Pakistan. Lang: Punjabi, Urdu, English, French. Acad Degrees: BSc Punjab (1961); BSc Lyallpur (1963); PhD Lyallpur (1970). Spec: Plant breeding, genetics, agronomy; wheat, sorghum, barley; evolution of high yielding, disease and drought resistant varieties of wheat, fertilizer use. Exper: Agronomist (1964-68); Professor of Plant Breeding & Genetics (1968-71); Asst Botanist, wheat (1971-present). Title: Asst Botanist. Address: Punjab Agric Research Institute, Lyallpur, PAKISTAN.

RANA, Prakriti S. J. B. (1939). Cit: Nepal. Lang: Nepalese, Hindi, English. Acad Degrees: BSc United Provinces, India (1960); MSc Oregon (1967); PhD Washington State (1971). Spec: Agronomy; wheat, rice, maize, barley; factors contributing to yield. Exper: Agric extension in Nepal (1960-66); various conferences and seminars in Kathmandu. Title: Regional Deputy Director, Agric (Kathmandu Region). Address: Ministry of Agric, Kathmandu, NEPAL.

RAO, Chikkudukalla Narasinga (1935). Cit: India. Lang: Telugu, English, Hindi, Oriya. Acad Degrees: BSc Andhra Univ (1955); MSc Utkal Univ (1957). Spec: Plant physiology; rice, fodder crops; mineral nutrition and physiological aspects of yield. Exper: Physiology of rice, nutrition, growth and yield studies, and salt tolerance (1958-73); fodder crops (1973-74); participant in USAID training program (use of radio isotopes in agric). Title: Asst Plant Physiologist. Address: Indian Grassland and Fodder Research Institute, Jhansi, U.P., INDIA.

RAO, Modekurty V. (1928). Cit: India. Lang: Telugu, English, Hindi, Tamil, Oriya. Acad Degrees: BSc Coimbatore (1948); MSc Utkal (1962). Spec: Agronomy; rice, jute, pulses, oilseeds; rice agronomy. Exper: Farm Manager (1948-54); Agronomy Research Asst (1954-63); Agronomy Research Officer (1963-67); Junior Agronomist (1967-70); Agronomist (1970-present); 2 visits to IRRI. Title: Agronomist. Address: Central Rice Research Institute, Cuttack-6, Orissa, INDIA.

RAO, M. V. (1928). Cit: India. Lang: Telugu, Hindi, English, German. Acad Degrees: BSc Andhra Univ (1948); MSc Agra Univ (1951); PhD Purdue (1966). Spec: Wheat, barley; breeding for yield, disease resistance and quality. Exper: Wheat improvement work (1952); Coordinator of wheat research in India (1972); guided 9 Phd and 11 MSc students in plant breeding. Title: Coordinator, All India Wheat Improvement Project. Address: Cummings Laboratory, Indian Agric Research Institute, New Delhi 110012, INDIA.

RAO, Paidipelly S. (1936). Cit: India. Lang: Telugu, Urdu, English, French. Acad Degrees: BSc Andhra Pradesh (1958); MSc Tamilnadu (1960); PhD Kansas (1969). Spec: Plant pathology, biochemistry; rice; disease epidemiology, disease resistance. Exper: Instructor (1960-64); Research Asst (1964-68); Assoc Plant Pathologist (1969-74); Insect Microbiologist (1974-present). Title: Junior Insect Microbiologist. Address: CRRI, Cuttack, Orissa, 753006, INDIA.

RAYCHAUDHURI, Syama Prasad (1915). Cit: India. Lang: Bengali, Hindi, English, Nepali, German. Acad Degrees: BSc (1935), MSc (1937) and PhD (1949) Calcutta. Spec: Plant pathology, virology, mycoplasmal diseases and plant protection; rice, wheat, citrus, mangoes, soybeans; plant disease and control. Exper: Government Scholar at IARI (1939-41); Agric Officer (1943-46); Asst Plant Pathologist (1946); Asst Virologist (1947); Systematic Mycologist (1955); Virus Pathologist (1955-61); Professor Plant Pathology, IARI (1961-65); Head, Div Mycology and Plant Pathology, IARI (1965-present). Title: Head, Div Mycology and Plant Breeding. Address: Indian Agric Research Institute, New Delhi 12, INDIA.

REIS, Ademar Vicente Dos (1946). Cit: Brazil. Lang: Portuguese, Spanish. Acad Degrees: BSc Federal Rural Univ, Dois Irmaos, Recife (1965). Spec: Statistics; corn, beans, oil crops and sugarcane. Exper: Head, Araripe Experiment Station, IPA, Pernambuco; Coordinator of ANDA/IRA Contract (1975). Title: Head, Statistics Section, IPA (Agric Research). Address: Av San Martin, 1371, Caixa Postal 1022, 50000 Recife, BRAZIL.

REITZ, Louis P. (1907). Cit: U.S.A. Lang: English. Acad Degrees: BSc Kansas (1930); MSc Nebraska (1937); PhD Minnesota (1955). Spec: Plant breeding, genetics, plant pathology; wheat, oat, barley, maize, sorghum; cereal grain improvement. Exper: Asst Agronomist (1930-35); Agronomist, grass breeding (1936-39); Assoc Professor, wheat (1939-46); Professor, wheat (1946-47); Agronomist, wheat (1947-54); Acting Head, Wheat Section (1954-59); in charge of Wheat and Rye Investigations (1959-62); Leader, Wheat Investigations (1962-72); Staff Scientist, cereals, National Program Staff, ARS-USDA (1972-present). Travel in Canada, Mexico, Afghanistan, China, Russia, Northern Europe. Fellow, ASA, AAAS. Title: Agronomist (Retired). Address: USDA-ARS, Rm. 320 North Bldg, BARC/W, Beltsville, Md. 20705, U.S.A.

RETIG, Baruch (1933). Cit: Israel. Lang: Hebrew, English. Acad Degrees: MSc Jerusalem (1958); PhD Wisconsin. Spec: Agronomy, plant breeding; chickpeas, wheat, peas, beans, soybeans; breeding, dryland farming. Exper: Research and teaching, natural pasture (1958-59); Research Agronomist in charge of legumes (1959-67); Senior Research, legumes and wheat (1970-present); Head of Small Grains Dept, Volcani (1970-72); Advisor in dryland farming, Brazil (1973). Title: Senior Researcher, Small Grain Dept. Address: Ministry of Agric, Agric Research Organization, The Volcani Center, B.O.B. 6, Bet-Dagan, ISRAEL.

REYES DISCUA, Napoleon (1944). Cit: Honduras. Lang: Spanish. Acad Degrees: Agron Escuela Agricola Panamericana (1963), Ing Agr Monterrey (1968); MSc Monterrey (1969). Spec: Plant breeding; rice, oilseeds; varietal improvement in rice. Exper: Agric Extension Agent (1964-65); in charge of rice project (research in rice cultivation)(1969-73); 11 international conferences. Title: Chief, Dept of Agric Research. Address: Desagro, Apdo. 309, Tegucigalpa, D.C. HONDURAS.

ROBLES, Leonel Hildebrando (1919). Cit: Mexico. Lang: Spanish, English. Acad Degrees: BSc Mexico (1943); MSc Minnesota (1946). Spec: Agronomy, plant pathology, genetics; wheat, maize, beans; education, formation of human resources for Latin American agric development. Exper: Chief, Extension Service and Plant Quarantine (1942-43); wheat research (1944-47); Institute of Technology for Higher Studies (1948-present); Founder, Departments of Agronomy and Zootechnics, and of the Graduate Program of Agri-business; President of the Latin American Assoc of Higher Education (1966-70); Member, Boards of Trustees of CIMMYT, the Educacion Superior del Noroeste A.C. and of the Pan American School of Agric; Advisor on the formation of the Asian Assoc of Agric Colleges and Universities (1972). Title: Director de la Division de Ciencias Agropecuarias y Maritimas. Address: Sucursal de Correos "J" Instituto Tecnologico y de Estudios Superiores, Monterrey, N.L. MEXICO.

RODRIQUEZ, Juan Jose (1937). Cit: Nicaragua. Lang: Spanish. Acad Degrees: Ing Agron National School of Agric (1962). Spec: Insect control; corn, beans, sorghum. Exper: Professor of Entomology, National School of Agric 4 yrs; research on insect control, Ministry of Agric, 4 yrs. Title: Head, Entomology Section. Address: Apartado 453, Escuela Nacional de Agric y Ganaderia, Managua, NICARAGUA.

ROSERO, Manuel Jesus (1931). Cit: Colombia. Lang: Spanish, English. Acad Degrees: BSc Univ Nacional de Colombia (1955); MSc Minnesota (1961); PhD Louisiana State (1967). Spec: Agronomy, plant pathology and plant physiology; rice, wheat, barley; plant breeding and cultural practices. Exper: Research Asst, wheat (1955-57); Head of Rice Investigations (1957-66); Director of National Rice Research Program of ICA in Colombia (1966-present); 6 overseas conferences. Title: Director of National Rice Program. Address: Instituto Colombiano Agropecuario, ICA, Apartado Aereo 233 Palmira, COLOMBIA.

ROSS, Hans (1912). Cit: West Germany. Lang: German, English, French. Acad Degrees: Dr (natural sciences) (1938) and Dr (natural sciences teaching) (1943) Univ of Berlin. Spec: Plant breeding, plant virology; potatoes; haploids, breeding for resistance. Exper: Researcher, Max-Planck-Institut fur Zuchtungsforschung, Koln-Vogelsang; Assoc Professor of Plant Genetics and Plant Breeding, Gottingen (1954), Koln (1958). Title: Scientific Cooperator and Professor. Address: Max-Planck-Institut fur Zuchtungsforschung, Koln-Vogelsang, FEDERAL REPUBLIC OF GERMANY.

RUBAIdAYO, Elizabeth Byanjeru (1942). Cit: Uganda. Lang: Runyoro, Runyankore, Luganda, English. Acad Degrees: BSc Makerere, Uganda (1968); MSc Illinois (1971). Spec: Plant breeding and genetics; maize; developing new varieties and improving protein quality. Exper: Scientific Officer, maize, rice, wheat (1968-70); Research Officer in Charge, Maize Breeding Program (1971-present); attended four conferences in Africa (1969-74); one-month study tour in U.S.S.R. (1972). Title: Research Officer, Maize Breeding Program. Address: Kawanda Research Station, P.O. Box 7065, Kampala, UGANDA.

RUBAIHAYO, Patrick R. (1940). Cit: Uganda. Lang: Runyankore, Luganda, English. Acad Degrees: BSc Makerere (1967); MSc Makerere (1969); PhD Illinois (1971). Spec: Plant breeding, genetics; soybeans, beans, cowpeas, pigeon peas, field peas, groundnuts; seed yield, protein quantity and quality, disease resistance, plant types. Exper: Research Asst (1967-68); Special Asst (1968-69); Lecturer, plant breeding and genetics (1972-present); research and teaching at undergraduate and graduate levels; several conferences on grain legumes in Europe and Africa (1969-present). Title: Lecturer. Address: Department of Crop Science, Makerere University, P.O. Box 7062, Kampala, UGANDA.

RUMAWAS, Fred (1938). Cit: Indonesia. Lang: Indonesian, English, Dutch. Acad Degrees: Ir Institut Pertanian Bogor (1963); MSc Kentucky (1965); PhD Purdue (1969). Spec: Agronomy, crop ecology; soybeans, peanuts, cowpeas, mungbeans, corn; adaptation studies of crops. Exper: Tidal swamp reclamation; Lecturer in Agronomy (1969-present); Director, Research and Development, IPB (1970-present); Chairman, National Rice Research Program (1973-present); yield trials with SEARCA & INTSOY (1970-present); seminars and conferences on crops and soils in S.E. Asia; Member Mekong Ad Hoc Panel on Environmental Studies. Title: Director, National Rice Research Program. Address: Bogor Agric Univ (Institut Pertanian Bogor), Jalan Otto Iskandardinata, Bogor, West Java, INDONESIA.

SAAD, Adib T. (1934). Cit: Lebanon. Lang: Arabic, English, Esperanto, French. Acad Degrees: BSc Beirut (1957); MSc Beirut (1959); PhD Wisconsin (1964). Spec: Plant pathology; potatoes, wheat, beans; etiology, epidemiology. Exper: Teaching and research at AUB Beirut (1959-61 and 1965-present), at Wisconsin (1961-65); 18 national and international conferences on plant pathology in Asia, Europe, U.S.A. Title: Assoc Professor of Plant Pathology. Address: Faculty of Agric Sciences, American Univ, Beirut, LEBANON.

SABALVORO, Eugenio Sayson (1932). Cit: Philippines. Lang: Bicol, English, Spanish, Filipino. Acad Degrees: BSA Philippines (1956); MSc Nottingham Univ (1965); PhD Aberdeen Univ (1972). Spec: Plant physiology (water relations), breeding; rice, corn; plant-soil-water relationship, crop improvement. Exper: Asst Instructor and Research Asst, Univ Philippines (1956-59); Research Agronomist, Bureau of Plant Industry (1960-present); Research Station Superintendent (1966-68); five scientific conferences in U.K.; Team Leader, Rice and Wheat Research Group (PCAR, incumbent); Member, Rice Varietal Improvement Group, Philippine Seed Board. Title: Supervising Agronomist and Regional Research Coordinator. Address: Bicol Rice and Corn Experiment Station, San Agustin, Pili, Camarines Sur, PHILIPPINES.

SAIDY, Nasir Ahmad (1946). Cit: Afghanistan. Lang: Dari, Pushto, English. Acad Degrees: BSc Kabul Univ (1967); MSc Colorado State (1971). Spec: Horticulture and biology; potatoes, tomatoes, pulse crops, apples, peaches, and grapes; quality, yield and improvement of local varieties. Exper: Research Asst, Potatoes, (1960-70); Instructor and Head of Dept (1971); Chairman of Fertilizer and Wheat Seed Distribution Program (1972-73); several international conferences. Title: Instructor and Head of the Dept of Horticulture. Address: Faculty of Agric, Kabul Univ, Kabul, AFGHANISTAN.

SAKSENA, Hari Krishna (1922). Cit: India. Lang: Hindustani, English, Hindi. Acad Degrees: MSc Allahabad (1944); Assoc IARI (1946); PhD Adelaide, Australia (1953). Spec: Plant pathology, mycology; rice, wheat, grain legumes, oilseeds, sesame, peanuts; parasitism, epidemiology, disease control. Exper: UNESCO Research Fellow, Australia (1950-52); Asst Professor (1953-58); Post-doctorate Fellow, NRC, Canada (1948-60); Professor and Head, Div of Plant Pathology (1961-present); attended 20 conferences, India, Asia, North America; Fellow and President, Indian Phytopathological Society (1970). Title: Professor and Head, Div of Plant Pathology. Address: U.P. Institute of Agric Sciences, Kanpur 208002, INDIA.

SALAKO, Ezekiel Adebayo (1946). Cit: Nigeria. Lang: Yoruba, Hausa, English. Acad Degrees: BSc Univ of Ife, Nigeria (1972). Spec: Agronomy, breeding and genetics; rice yield, grain color, blast resistance and shattering. Exper: Research Officer, floating rice breeding (1972-present). Title: Research Officer. Address: Federal Dept of Agric Research, Rice Research Station, P.M.B. 8, Bida N/W State, NIGERIA.

SALAN, Abdul (1936). Cit: Afghanistan. Lang: Persian (Dari), English, Pashto. Acad Degrees: BSc Science College, Kabul (1958); MSc Wyoming (1965). Spec: Biochemistry; wheat, corn, rice; agric. chemistry, pesticide chemistry. Exper: Teaching chemistry 8 yrs; research including determination of percentage of oil in Afghan oilseeds and protein in wheat. Title: Instructor. Address: Faculty of Agric, Kabul Univ, Kabul, AFGHANISTAN.

SALAZAR B., Angel (1930). Cit: Nicaragua. Lang: Spanish, English. Acad Degrees: Ing Agron Cochabamba (1953); MSc Nebraska (1959). Spec: Plant breeding; maize, sorghum; yield. Exper: Development of improved cereal varieties for Nicaragua and Central America; technical publications. Title: Director. Address: De Kalb Seed Operations for Central America, Apartado 3242, Managua, NICARAGUA.

SALDARRIAGA, Alfredo (1926). Cit: Colombia. Lang: Spanish, English, French. Acad Degrees: Facultad Nacional de Agricultura-Palmira (1953); MSc North Carolina State (1960). Spec: Agronomy, entomology; corn, beans, soybeans, rice, cocoa; insect control. Exper: Research (1954-68); wheat (1957-60); Research Officer of Entomology Program Investigations (1968-71); Professor of Entomology, Graduate Program ICA-UN (1972-74). Title: Sectional Research Officer. Address: Instituto Colombiano Agropecuario, Apartado Aereo 233 Palmira, COLOMBIA.

SALHUANA, Wilfredo S. (1928). Cit: Peru. Lang: Spanish, English. Acad Degrees: Ing Agr (1951); MSc North Carolina State (1960); PhD Minnesota (1969). Spec: Agronomy; maize, sorghum; genetics and statistics. Exper: Maize Geneticist (1953-present); Principal Professor Plant Breeding (1958-present); Chief in Physics, Math and Statistics Dept (1962-66); Director Corn Program (1963-66); Coordinator Agronomy Research Center ((1971); Director, Statistics & Data Processing Center (1971-present); several international conferences. Title: Director CEPDA-UNA. Address: Universidad Nacional Agraria La Molina, Apartado 456, Lima, PERU.

SAMII, Mohammad (1934). Cit: Iran. Lang: Farsi, English, French. Acad Degrees: BSc Karaj Agri College (1957); MSc Tehran (1959); MSc Univ of Saskatchewan, Canada (1965). Spec: Agronomy, breeding, cereal technology; wheat, barley; multiple cropping and rotation studies, irrigation studies on field crops, cereal quality. Title: Director. Address: Seed and Plant Improvement Institute, Karaj, IRAN.

SAMONTE, Henry Peralta (1939). Cit: Philippines. Lang: Tagalog, English. Acad Degrees: BSc Philippines (1960); MSc Philippines (1965); PhD Missouri (1970). Spec: Soil fertility chemistry, plant nutrition, agronomy; maize, potatoes, sorghum; liming, plant population and soil fertility, nutrient balance. Exper: Science and Agric Instructor (1960-63); Research Instructor (1965-70); Asst Professor, Soil Science (1970-present); Project Leader, four research projects; presented 3 papers in Inter-Asian Maize Improvement Workshop, 4 papers in local conferences. Title: Asst Professor of Soil Science. Address: Dept of Soil Science, College of Agric, Univ of the Philippines, Los Banos, College, Laguna, PHILIPPINES.

SAMPAIO, Clovis Vaz (1932). Cit: Brazil. Lang: Portuguese, Spanish. Acad Degree: BSc School of Agriculture, Federal Univ of Bahia (1956). Spec: Agronomy, plant science; manioc and citrus; management and genetic improvement of manioc. Exper: Head of 8th Forest District, State of Bahia (1957-58); Local Supervisor of Extension (1961-74); Asst Professor, Dept of Plant Science, School of Agric, Bahia (1960-74). Title: Asst Professor and Researcher in Manioc. Address: Escola de Agronomia da Universidade Federal de Bahia, Cruz das Almas, Bahia, BRAZIL.

SAMPHANTHARAK, Krisda (1944). Cit: Thailand. Lang: Thai, English. Acad Degrees: BSc Kasetsart (1968); MS Oregon State (1971); PhD Oregon State (1973). Spec: Agronomy, plant breeding; sorghum, corn, soybeans; yield and quality. Exper: Research Asst, wheat & barley (1971-74); Project Leader, sorghum (1973-present); Lecturer, Plant Science (1973-present). Title: Lecturer and Researcher. Address: Plant Science Dept, Kasetsart Univ, Bangkok 9, THAILAND.

SANCHEZ, Fernando Flores (1936). Cit: Philippines. Lang: Filipino, English. Acad Degrees: BSA Philippines (1958); MSc Hawaii (1962); PhD Hawaii (1965). Spec: Entomology, zoology; rice, sweet potatoes, cabbage, beans, tomatoes; applied toxicology (insects, birds, rodents), pest management. Exper: Research Asst, toxicology and economic entomology of insect pests (1958-64); Asst Professor of Entomology (1964-73); Chairman, Dept of Entomology, UPLB (1967-71); Assoc Professor of Entomology (1973-present); Director, Rodent Research Center (1971-present); 8 international conferences; Member, National Food and Agric Council Pesticide Committee (1973-present). Title: Director, Rodent Research Center and Assoc Professor of Entomology. Address: Rodent Research Center, Univ of the Philippines at Los Banos College, Laguna, PHILIPPINES.

SANCHEZ, Hugo E. (1927). Cit: Peru. Lang: Spanish, English. Acad Degrees: Ing Agron Universidad Agraria La Molina (1952); MSc Minnesota (1968). Spec: Agronomy and plant breeding; corn, sorghum; improvement of corn for highland and tropical areas in Peru. Exper: Corn breeding; teaching undergraduate and graduate plant breeding courses. Title: Principal Professor and Geneticist in Maize. Address: Universidad Agraria La Molina, Program de Maiz, Apartado 456, Lima, PERU.

SANCHEZ, Raul (1942). Cit: Peru. Lang: Spanish, English, Portuguese. Acad Degrees: BSc Agraria del Norte (1966); MSc Turrialba (1972). Spec: Plant breeding, ecology; sunflowers, soybeans, sorghum. Exper: Research, soybeans, sunflowers, sorghum; teaching oilseed crops and ecology. Title: Ingeniero Agronomo. Address: 8 de Octubre 637 Lambayeque, Casilla 48, PERU.

SANDHU, Gurdev Singh (1938). Cit: India. Lang: Punjabi, English, Hindi, Urdu. Acad Degrees: BSc Ludhiana (1959); MSc Ludhiana (1963); PhD New Delhi (1968). Spec: Entomology, plant pathology; maize, sorghum, millet, wheat; field behavior and chemical control of major pests, rotary disc and ULV sprayers. Exper: Demonstrator in Zoology, Amritsar (1959-61); Research Asst, Rockefeller Foundation, New Delhi (1963-64); Entomologist, CIBA, Madras (1968-70); Entomologist (Maize), Ludhiana (1970-74). Title: Entomologist (Research). Address: Dept of Entomology, Punjab Agric Univ, Ludhiana (Punjab), INDIA.

SANTIAGO, Joaquim C. (1923). Cit: Brazil. Lang: Portuguese, English, French, Spanish. Acad Degrees: Eng Agron Lisbon (1947); PhD Minnesota (1956). Spec: Plant pathology; wheat, oats, barley; epidemiological studies, breeding for disease resistance. Exper: Head, Plant Pathology Laboratory, Elvas, Portugal (1949-72); missions to Angola, Morocco, Tunisia. Title: FAO Plant Pathologist. Address: Estacao Experimental de Passo Fundo, Caixa Postal 569, 99.100 - Passo Fundo, RS, BRAZIL.

SANTOS, Elton Oliveira dos (1944). Cit: Brazil. Lang: Portuguese, Spanish, English. Acad Degrees: BSc Pernambuco (1966); MSc Cornell (1970). Spec: Plant breeding; tuber crops, vegetables; mass selection, variety trials. Exper: Various meetings,

congresses in Brazil and the U.S.A. Title: Agronomist in Charge, Cassava Program. Address: Instituto de Pesquisa e Experimentacao Agropecuaria do Nordeste (IPEANE), BR 232 Km. 10 Curado, Recife, Pernambuco, BRAZIL.

SARAFI, Ahmad (1939). Cit: Iran. Lang: Persian, French, English. Acad Degrees: BSc Karadj, Iran (1964); MSc Toulouse, France (1968); PhD Toulouse (1970). Spec: Genetics, plant breeding; beans, sesame, maize; quantitative inheritance of characteristics, resistance to diseases. Exper: Technical Research Asst (1964-67); Asst Professor, Plant Breeding (1970-present); attended IV International Plant Breeding Course, Wageningen; conferences in Iran, U.S.A. Title: Asst Professor. Address: College of Agric, Karadj, P.O. Box 209, IRAN.

SARUP, Prakash (1931). Cit: India. Lang: Hindi, English, Urdu. Acad Degrees: BSc Agra (1950); MSc Agra (1952); PhD IARI (1968). Spec: Entomology, agricultural chemistry; maize, sorghum, wheat, millets; insect toxicology, insect plant relationship, evolution of control schedule, breeding for resistance to maize stalk borers. Exper: Senior Scientific Asst (1953-55); Research Asst (1955-62); Asst Parasitologist (1962-63); Asst Engomologist (1963-68); Junior Entomologist (1968-71); Entomologist (1971-present); Chief Editor, Indian Journal of Entomology & Bulletin of Entomology; Managing Editor of International Maize Journal. Title: Entomologist and Principal Investigator (Maize). Address: Division of Entomology, Indian Agric Research Institute, New Delhi- 110012, INDIA.

SAXENA, Mohan Chandra (1938). Cit: India. Lang: Hindi, English, German. Acad Degrees: BSc Agra (1957); MSc Agra (1959); PhD IARI (1962); D Ag Hohenheim (1965). Spec: Agronomy, agrophysiology, mineral nutrition; grain legumes, soybeans; nutrition of grain legumes and soybeans, agrophysiology and agronomic management. Exper: IARI (1965); Scientific Officer, Atomic Research Center (1966); Assoc Professor, Agronomy (1966-72); Professor, Agronomy (1972-present); Principal Investigator, Grain Legume Agronomy, ICAR (1972-present); four international conferences; Consultant to UNDP, soybean project, Sri Lanka; Title: Professor, Agronomy and Coordinator, Soybean Project, ICAR. Address: Dept of Agronomy, G.B. Pant Univ, Pantnagar, 263145 INDIA.

SCHEUCH, Federico (1931). Cit: Peru. Lang: Spanish, English. Acad Degrees: Ing Agron La Molina (1952); MSc Iowa (1957). Spec: Plant breeding; maize; genetics, breeding and seed production. Exper: Research and extension in maize; teaching of genetics, crop breeding, and experimental design; several domestic and international conferences. Title: Principal Professor and Head, Maize Program. Address: Universidad Nacional Agraria, La Molina, Aptdo 456, Lima PERU.

SCHIEBER, Eugenio (1929). Cit: Guatemala. Lang: Spanish, English, German. Acad Degrees: MSc Wisconsin (1957); PhD Wisconsin (1959). Spec: Plant pathology, botany; coffee, corn, beans, potatoes; rusts, maize rusts, coffee rust. Exper: Head, Plant Pathology Dept, Instituto Agropecuario Nacional (1959-71); bean disease consultant, OAS (1965-present); travels in Africa and South America on maize and coffee rusts; consultant to West Germany on plant pathology (1973-present); Botanist for Univ of California (1971-present). Title: Consultant in Tropical Plant Pathology. Address: P.O. Box 226, Antigua, GUATEMALA.

SCHIFFMANN, Jacob (1907). Cit: Israel. Lang: Hebrew, English, French, German, Polish. Acad Degrees: BSc Nancy (1930); MSc Strasbourg (1939); PhD Jerusalem (1952). Spec: Agronomy, soil microbiology; peanuts, beans, alfalfa, legumes; nitrogen fixation and legume inoculation. Exper: Research, Volcani Center of Agric Research (1935-74); FAO Working Party (1956); Special Study Program on Soil Bacteriology at Universities of Florida and Wisconsin (1957). Title: Senior Research Agronomist. Address: Legume Inoculation Division, Agric Research Organization, The Volcani Center, Bet Dagan, ISRAEL.

SCHMIDT, Donald R. (1926). Cit: U.S.A. Lang: English. Acad Degrees: BSc Wisconsin (1952); MSc Wisconsin (1953); PhD Cornell (1971). Spec: Agronomy, vegetable crops; beans, chickpeas, lentils, peas, safflower, amaranth; crop quality, adaptation, response to fertilizer. Exper: Agronomist, Wisconsin (1953-60); International Voluntary Services (Agric, Vietnam) (1960-62); teaching/research Agric School, Nigeria (1965-67); Research Agronomist (1971-present). Title: Agronomist. Address: P.O. Box 32, Debre Zeit, ETHIOPIA.

SCHWENK, Richard L. (1934). Cit: U.S.A. Lang: English, Iban, Ilocano. Acad Degrees: BSc Wisconsin (1957); MDivinity Garrett Theological Seminary (1965); MSc Cornell (1971). Spec: Agric education, extension, rice agronomy; rice, maize, sweet potatoes, groundnuts; rice production and storage, extension methods, development sociology. Exper: Agric Teacher, Philippines (1957-61); Agric Extension Missionary, Sarawak (1965-74); study leave, Cornell (present); special study at IRRI (seed collection and applied research); extensive travel Philippines and Sarawak. Title: Graduate Student. Address: c/o Prof. Robert Bruce, Extension Education, Stone Hall, Cornell Univ, Ithaca. New York 14850. U.S.A.

SCOTT, Walter O'Daniel (1914). Cit: U.S.A. Lang: English. Acad Degrees: BSc Kansas State (1939); MSc Illinois (1949); PhD Purdue Univ (1959). Spec: Soils and crops; soybeans, corn, small grains and forages; crop and seed production, certification. Exper: 30 yrs in agronomy extension; 30 yrs seed certification, field seed production and commercial field crop production; Rockefeller Foundation Consultant to All India Seed Team in India (1966); Consultant to Govind Ballabb Plan Univ, Pantnager, India (1972). Title: Professor of Crops, Extension Dept of Agronomy. Address: N305 Turner Hall, Univ of Illinois, Urbana, Illinois 61801, U.S.A.

SECHLER, Dale Truman (1926). Cit: U.S.A. Lang: Acad Degrees: BSc Missouri (1950); M ED Missouri (1953); PhD Missouri (1960). Spec: Plant breeding, crop production; wheat, oats, barley, sorghum, soybeans; development of fertilizer-responsive varieties that resist major disease and insect pests. Exper: Small grain breeder in Missouri and Florida; teaching, crop production and plant breeding; two yrs India in research and development; three-month assignment Tanzania on food crops. Title: Assoc Professor of Agronomy. Address: Dept of Agronomy, Univ of Missouri, 208 Waters Hall, Columbia, Missouri 65201, U.S.A.

SEHGAL, Surinder Mohan (1934). Cit: U.S.A. Lang: Punjabi, Urdu, Hindi, English, Spanish. Acad Degrees: BSc Punjab (1955); MSc Punjab (1957); PhD Harvard (1963). Spec: Plant breeding and genetics; maize, sorghum, wheat, soybeans, forage and pasture crops; plant breeding. Exper: Research Assoc, commercial seed company, U.S.A. (1963-64); Head, Tropical Research Station and Geneticist in charge tropical maize and sorghum breeding, Jamaica, W.I. (1964-70); Coordinator for Tropical and Sub-Tropical Areas, Pioneer Hi-Bred International, Inc. (1970-73); Manager, Overseas Seed Div. Title: Manager, Overseas Seed Div. Address: Pioneer Hi-Bred Inc, 1206 Mulberry Street, Des Moines, Iowa 50308, U.S.A.

SELLEY, Gordon N. (1942). Cit: U.K. Lang: English, French, Swahili. Acad Degree: BSc Sheffield (1964). Spec: Plant breeding, agronomy, seed production; maize, sunflowers, barley, beans, grain legumes; seed production. Exper: Plant Breeder, maize and tobacco, Malawi (1964-69); Plant Breeder and Manager of Research Service (1969-present); extensive travel in East and Central Africa. Title: Manager, Research and Development Service. Address: Kenya Seed Company, Ltd, P.O. Box 553, Kitale, KENYA.

SEMINARIO, Carlos A. (1931). Cit: Peru. Lang: Spanish, English. Acad Degree: Ing Agr La Molina (1957). Spec: Agronomy, plant breeding; maize, legumes. Exper: Research Asst (1958-61); Extension Service (1963); Research Specialist, maize, legumes, oil plants (1964-67); Chief, Agronomy Dept, Lambayeque (1968-70). Title: Chief, Agronomy Dept. Address: Estacion Experimental Agraria, Vista Florida, Apartado 116, Chiclayo, PERU.

SENA, Zinaldo Figueiroa (1917). Cit: Brazil. Lang: Portuguese, English, Spanish. Acad Degree: BSc School of Agriculture, Federal University of Bahia (1944). Spec: Agric engineering; manioc and rice; irrigation. Exper: Asst Professor of Genetics (1945-47); Professor of Agric Engineering (1947-48); Dean of the School of Agric (1948-52); Professor of Irrigation (1953-58); Head of Rural Engineering of Agronomic Institute (1955-64); Head of Services for Colonization for Land Reform (1964-68); Dean of School of Agric (1968-75). Title: Dean of the School of Agric. Address: Escola de Agronomia de Universidade, Federal da Bahia, Cruz das Almas, Bahia, BRAZIL.

SEQUEIRA B., Frank (1945). Cit: Nicaragua. Lang: Spanish, English. Acad Degrees: Ing Agr National School of Agriculture (1970); MSc Puerto Rico (1975). Spec: Nematology, agronomy; pineapples, bananas, plantain, vegetables, corn; control. Exper: Research Officer in charge of corn investigations (1970-72); Assoc Professor of Phytopathology (1975); Member of Tropical American Nematology. Title: Assoc Professor. Address: Escuela Nacional de Agricultura y Ganaderia, P.O. Box 453, Managua, NICARAGUA.

SEQUEIRA, Julio (1936). Cit: Nicaragua. Lang: Spanish, English. Acad Degrees: BA National School of Agriculture (1957); MSc Florida (1967); PhD Louisiana State (1972). Spec: Entomology; rice; crop protection. Exper: Plant quarantine training, U.S. Dept of Agric, New York; Cotton insect research, 2 yrs, Ministry of Agric, Nicaragua; Professor of Entomology, National School of Agric and the Central American Univ in Nicaragua 3 yrs; rice insect research and extension for the National Bank of Nicaragua, 3 yrs. Title: Entomology Advisor. Address: Apartado Postal 328, Programa de Arroz, Banco Nacional de Nicaragua, Managua, D.N., NICARAGUA.

SESHU, Durvasula V. (1933). Cit: India. Lang: Telugu, English, Hindi, Oriya. Acad Degrees: BSc Andhra Univ (1952); MSc Utkal Univ (1954); PhD Utkal (1964). Spec: Cytogenetics, breeding; rice; breeding for disease and pest resistance. Exper: Research Asst, rice (1955-71); Asst Botanist (1961-69); Research Officer, rice (1969-72); Senior Rice Breeder (1972-present); several international rice conferences. Title: Senior Rice Breeder, AICRIP. Address: All India Coordinated Rice Improvement Project, Rajendranagar, Hyderabad 500030, Andhra Pradesh, INDIA.

SEVILLA, Ricardo (1934). Cit: Peru. Lang: Spanish, English. Acad Degrees: Ing Agr National Univ (1961); MSc Nebraska (1965). Spec: Plant breeding; maize; genetics, plant breeding, germ plasm bank. Exper: Asst, maize breeding (1959-63); maize breeding in highlands of Peru (1965-present); Chief, Germ Plasm Bank, maize, La Molina (1959-present); teaching genetics and plant breeding, National Univ of Agric; attended several international conferences (1961-present). Title: Principal Professor, Maize Genetics. Address: Universidad Nacional Agraria, La Molina, Apartado 456, Lima, PERU.

SHAFI, Ch. Muhammad (1919). Cit: Pakistan. Lang: Urdu, Punjabi, English. Acad Degrees: MSc (agric) Punjab (1951); MSc Minnesota (1959). Spec: Plant breeding; rice; yield, quality. Exper: 30 yrs plant breeding; attended symposium in Tokyo (1969) and several conferences at IRRI. Title: Rice Botanist and Head of Station. Address: Rice Research Station, Kala Shah, Kaku, Punjab, PAKISTAN.

SHAH, Ramaniklal M. (1927). Cit: India. Lang: Gujarati, English, Hindi. Acad Degrees: BSc Bombay (1948); MSc Wisconsin (1965); PhD Wisconsin (1967). Spec: Plant breeding; maize, grain legumes, soybeans; plant pathology. Exper: Plant breeder, groundnuts, soybeans, sesame (1967-70); Economic Botanist on pulses, maize, essential oilseeds (1970-present). Title: Professor of Botany. Address: College of Agric, Junagadh, Gujarat State, INDIA.

SHARMA, Krishna Kumar (1934). Cit: India. Lang: Hindi, English. Acad Degrees: BSc Agriculture College, Gwalior (1958); MSc R.A.K. Agric College, Sehore (1960). Spec: Plant breeding, physiology; rice; cold tolerance, protein quantity and quality, fertilizer use. Exper: Research Asst (1960-64); Asst Economic Botanist, Rice (1964-70); Rice Breeder (1971-present); received training at IRRI. Title: Rice Breeder. Address: Dept Plant Breeding and Genetics, J.N. Agric Univ, Jabalpur-482004, INDIA.

SHARMA, Shatanjiw Das (1934). Cit: India. Lang: Oriya, Hindi, English, German. Acad Degrees: BSc Utkal Univ (1956); MSc Indian Agric Research Institute (1960); PhD IARI (1964). Spec: Genetics, cytology, taxonomy; rice; collection and evaluation of germ plasm, taxonomy of rice. Exper: Participated in symposia at IARI, New Delhi (1970), IRRI, Philippines (1971), and Krasnoda, USSR (1973). Title: Rice Botanist. Address: IARI Regional Research Station, Hyderabad - 500030, INDIA.

SHASTRY, V. S. S. (1928). Cit: India. Lang: Hindi, Telugu, Tamil, English, Oriya. Acad Degrees: BSc (1950); MSc Wisconsin (1957); PhD Wisconsin (1958). Spec: Plant breeding, cytogenetics; rice, maize, wheat. Exper: Research Asst (1950-58); Asst Prof Botany (1958-61); Botanist (1961-66); Rice Project Coordinator AICRIP (1966-present). Member of IRRI Board of Trustees (1970-73). Numerous international rice meetings. Title: Project Coordinator (Rice). Address: All India Coordinated Rice Improvement Project, Rajendranagar, Hyderabad-500030, A.P., INDIA.

SHEN, T. C. (1929). Cit: Republic of China, (Taiwan). Lang. Chinese, English, Malay. Acad Degrees: BSc National Taiwan (1954); MSc Mighigan State (1962); PhD Michigan State (1964). Spec: Plant physiology; rice, sugarcane, legumes; nitrogen assimilation and fixation and nitrate reduction, mineral nutrition, photosynthesis. Exper: More than 10 yrs on crop and plant physiology research; teaching, 4 yrs in Taiwan, 7 yrs in Malaysia; research fellowship Plant Research Lab, Michigan State (1971-72). Title: Head, Div of Psysiology. Address: School of Biological Sciences, Univ of Malaysia, Kula Lampur, MALAYSIA.

SHIM, Sang Chil (1917). Cit: South Korea. Lang: Korean, Japanese, English, German. Acad Degrees: BSc Seoul (1950); MSc Seoul (1954); PhD Seoul (1965). Spec: Bio-phytochemistry; rice, fruit trees; plant nutrition, ion uptake. Exper: Professor of Physical Chemistry (1954-67); special training in U.S. (1956-59; teaching staff of isotope school (1960-67); Director of Radiation Research

Institute in Agric (1967-73); 8 international conferences. Title: Commissioner, Atomic Energy. Address: Ministry of Science and Technology, P.O. Box 7, Chungryangri, Seoul, SOUTH KOREA.

SHMARAEV, Grigorij Egorovich (1929). Cit: U.S.S.R. Lang: Russian, English, German. Acad Degrees: Tashkent's Agricultural Institute (1953); N. I. Vavilov Institute of Plant Industry (1956); N. I. Vavilov Institute (1971). Spec: Agronomy, botany and genetics of maize; maize, sorghum, millet, barley, wheat, vegetable crops; botanical, systematic evolution and breeding program of maize and other crops. Exper: Scientific and practical training in genetics and breeding programs of maize in the U.S.A. (1962-64); scientific expeditions for collecting germ plasm of different crops in Chile, Argentina, Peru, Tanzania, Uganda and Australia; symposia in Australia and U.S.A. (1970), England (1972), Mexico (1974); Chief, Maize and Small Cereal Crops Dept, N. I. Vavilov Institute of Plant Industry. Title: Professor. Address: The N. I. Vavilov All Union Institute of Plant Industry, 44 Hercen Street, Leningrad, U.S.S.R.

SHOYINKA, Stephen A. (1942). Cit: Nigeria. Lang: Yoruba, English. Acad Degrees: BSc Univ of Ife (1965); PhD Welsh Plant Breeding Station, Aberystwyth (1970). Spec: Ecology of plant protection, virology; cowpeas, soybeans, groundnuts, maize, cassava; identification, epidemiology and control of viruses of major food crops. Exper: Agric Officer, sugarcane agronomy, kenaf entomology and food crop pathology (1965-67); Plant Virologist Univ of Ife (1971-present). Title: Plant Virologist. Address: Institute of Agric Research and Training, Univ of Ife, P.M.B. 5029, Ibadan, NIGERIA.

SHUKRY, Mohammad Wagdey A. (1937). Cit: Egypt. Lang: Arabic, English, Spanish. Acad Degrees: BSc Cairo (1959); MSc Agronomy Cairo (1965); PhD. Alexandria (1974). Spec: Plant breeding, genetics; wheat, barley; disease resistance, mutations. Exper: Training at CIMMYT (1963); international seminars on wheat (1968-73); FAO Near East Cereal Improvement and Production Project (1970-72). Title: Senior Technical Asst. Address: FAO Regional Office, P.O. Box 2223, Cairo, EGYPT.

SIKKA, Lal Chand (1917). Cit: India. Lang: Punjabi, English, Urdu, Hindi. Acad Degrees: BSc Punjab (1939); MSc Punjab (1955). Spec: Plant breeding, genetics, biometry; potatoes, tobacco, millet (pearl), wheat; development and production of potato breeder's seed, determining cultural and fertilizer requirements of new genotypes. Exper: Agric Asst (1939-48), Senior Research Asst Botany (1949-56), Asst Botanist (1957-62), Regional Botanist, potatoes (1963-67); Botanist, potatoes (1968-70); Senior Chief Production Officer (1973-present); visits to Canada. Title: Project Coordinator and Senior Chief Production Officer. Address: Central Potato Research Institute, Simla-171001, H.P., INDIA.

SILVA, Ady Raul da (1917). Cit: Brazil. Lang: Portuguese, English, Spanish. Acad Degrees: Ing Vicosa (1937); MSc Minnesota (1946); PhD Minnesota (1954). Spec. Plant breeding, plant pathology; wheat; breeding for disease resistance and for resistance to aluminum toxicity in the soil, developing varieties adapted to tropical conditions. Exper: Asst Professor (1944-46); Professor (1951-69); wheat breeding (1940-present); Head, Section of Plant Breeding and Agronomy; Director, Research Institute in the South (1955-61); Director, National Research Dept of Agric (1964-67); Director of Agric, National Research Council (1968-70); Research Officer in charge of coordination of wheat research in the North Section. Title: Agric Research C 22. Address: Centro de Pesquisas Pedologicas, Rua Jardim Botanico No. 1024, Rio de Janeiro, GB, BRAZIL.

SILVA, Jairo (1932). Cit: Brazil. Lang: Portuguese, Spanish, English. Acad Degrees: BSc Agr ESAL (Lavras) (1954); MS Sao Paulo (1969). Spec: Plant breeding and genetics; maize, sorghum, rice, millet; breeding for yield, oil, protein quality, quantitative genetics. Exper: In charge of maize breeding, Instituto Agronomico de Minas Gerais (1955-62); Leader, Corn Research National Committee (1969-73); Brazilian Co-Director, Maize and Sorghum National Project (1972-74); Coordinator, National Maize and Sorghum Meeting (1974). Title: Crops Assessor, Scientific Dept. Address: EMBRAPA, C.P. 1316, Brasilia - D.F., BRAZIL.

SILVA, William Jose da (1937). Cit: Brazil. Lang: Portuguese, English, Spanish. Acad Degrees: BSc Sao Paulo (1961); MSc Nebraska (1966); PhD Nebraska (1968). Spec: Agronomy, plant breeding; maize, sorghum; maize breeding for yield, protein, oil and starch quality, disease, insect and drought resistance. Exper: Research Asst, maize breeding (1961-present); scientific trips to Mexico, Canada, U.S.A. Title: Research Asst, Dept of Genetics. Address: Instituto Agronomico de Campinas - CP 28 - Campinas, Sao Paulo, BRAZIL.

SILVEIRA, Expedito Paulo (1941). Cit: Brazil. Lang: Portuguese, Spanish, English. Acad Degree: BSc South Federal Rural Univ (1964). Spec: Genetics, plant breeding; rice; plant type, grain quality, seed technology. Exper: Livestock management and production research (1965-67); seed technology research (1968-69); Rice Breeder (1970-71); Deputy Director, South Brazilian Research Institute (1972-73); Director, National Rice Research Project (1972-74); Conference at IRRI (1974); now taking MSc degree at Sao Paulo Univ (ESALQ). Title: Rice Breeder Address: Embrapa-IPEAS, C.P. "E", 96.100, Pelotas, RS, BRAZIL.

SILVERA, Gaspar Alberto (1943). Cit: Panama. Lang: Spanish, English. Acad Degrees: BSc Panama (1964); MSc IIAS (1967); PhD Michigan State (1974). Spec: Phytopathology, plant breeding; beans, cowpeas, soybeans, pigeon peas; development of low tropical bean varieties, developing a high yielding, mechanically harvested cowpeas. Exper: Field technician, tobacco (1964-65); Teacher of Phytopathology (1967-70); Plant Breeder (grain legumes) at Univ of Panama (1974). Title: Professor Investigator. Address: Facultad de Agronomia, Estafeta Universitaria, PANAMA.

SINGH, Amar (1936). Cit: India. Lang: Hindi, Punjabi, English, Urdu. Acad Degrees: Bsc (Hons) Delhi Univ (1959); MSc IARI New Delhi (1961). Spec: Plant breeding, genetics, cytogenetics, statistics, botany; cowpeas, green gram, black gram, pigeon peas, horse gram, forage legumes, grasses; pasture grass and legume variety improvement, pastures improvement. Exper: Research Asst Genetics Div IARI (1962-66); Asst Research Officer (agrostology) (1966-69); Plant Breeder (legumes) (1969-present). Title: Plant Breeder. Address: Indian Grassland and Fodder Research Institute, Jhansi, U.P., INDIA.

SINGH, Bir Bahadur (1944). Cit: India. Lang: Hindi, English. Acad Degrees: BSc Govind Ballabh Pant Univ (1963); MSc Illinois (1965); PhD Illinois (1967). Spec: Plant breeding, genetics, plant physiology; soybeans; breeding for seed quality, protein and oil quantity and quality, yield, disease resistance. Exper: Research Assoc, Cornell (1967-68); Asst Professor Plant Breeding, G.B. Pant Univ (1968-70); Assoc Professor and Senior Research Officer for Soybean breeding (1970-present). Title: Assoc Professor and Senior Research Officer. Address: Dept Plant Breeding, G. B. Pant Univ of Agric and Technology, Pantnagar, INDIA.

SINGH, Joginder (1932). Cit: India. Lang. Hindi, Punjabi, Urdu, English. Acad Degrees: BSc Allahabad (1953); Assoc MSc Indian Agric Research Institute (1955); PhD IARI (1967). Spec: Genetics and plant breeding; maize; improvement of maize. Exper: 19 yrs of research, teaching and administrative experience; improvement maize crop in India; attended several Asian & international conferences. Title: Project Coordinator (maize). Address: Cummings Laboratory, Indian Agric Research Institute, New Delhi, INDIA.

SINGH, Kalpa Nath (1921). Cit: India. Lang: Hindi, English. Acad Degrees: BSc Varanasi (1943); MSc Wisconsin (1958); PhD Wisconsin (1959). Spec: Agric extension and communication; wheat, rice, grain legumes, oilseeds, vegetables; agric development, increasing production on small farmers' fields, integrated area development. Exper: 15 yrs research in extension education, communication, adoption and diffusion of innovation, administration, and supervision training; 20 yrs teaching postgraduate classes; 20 yrs on training programs for extension personnel, administrators and farmers. Title: Head, Div of Agric Extension. Address: Indian Agric Research Institute, New Delhi, 110012, INDIA.

SINGH, Mahendra P. (1922). Cit: India. Lang: Hindi, English, Sanskrit, German, Spanish. Acad Degrees: BSc Agra (1941); MSc Benaras Hindu Univ (1943). Spec: Crop breeding; wheat, sorghum; breeding for high yielding, resistant quality wheats. Exper: Millet Breeder, sorghum and millet (1948-60); Wheat Breeder (1960-present); three decades of practical crop breeding, developed many varieties of wheat, barley, sorghum and millet. Title: Wheat Breeder. Address: U.P. Institute of Agric Sciences, (Nawabganj) Kanpur, U.P., INDIA.

SINGH, Mukhtar (1915). Cit: India. Lang: Punjabi, English, Urdu, Hindi. Acad Degrees: BSc Punjab (1934); MSc Punjab (1942); PhD Edinburgh (1948). Spec: Agronomy, crop physiology; potatoes, wheat, fodders, rice, grain pulses, maize; water use, fertilizer use, weed control, culture and rotation experiments. Exper: Agric Asst (1935-45); Agronomist, tobacco, potatoes (1948-57); Agronomist, irrigation and Major Advisor, post-graduate studies (1957-62); Deputy Agric Commissioner, agronomy (1962-65); Director, Grassland and Fodder Research Institute (1965-69); Director, Central Potato Research Institute (1969-present); extensive travel and participation in international conferences. Title: Director. Address: Central Potato Research Institute, Simla-1 (H.P.), INDIA.

SINGH, Nar Singh Narain (1943). Cit: India. Lang: Hindi, English. Acad Degrees: BSc Gorakhpur Univ (1961); MSc Agra Univ (1964); PhD Agra Univ (1971). Spec: Botany, genetics, plant breeding; maize, sorghum; maize breeding and maize genetics. Exper: Research Asst maize (1964-66); Senior Research Asst (1967-71); Junior Scientific Officer Coordinating Unit, maize (1971-present); teaching advance course in genetics. Title: Scientific Officer. Address: Cummings Laboratory, Indian Agric Research Institute, New Delhi-12, INDIA.

SINGH, Nar Singh Narain (1943). Cit: India. Lang: Hindi, English. Acad Degrees: BSc Gorakhpur Univ (1961); MSc Agra Univ (1964); PhD Agra Univ (1971). Spec: Botany, genetics, plant breeding; maize, sorghum; maize breeding and maize genetics. Exper: Research Asst maize (1964-66); Sr Research Asst (1967-71); Jr Scientific Officer Coordinating Unit, maize (1971-present); teaching advance course in genetics. Title: Scientific Officer. Address: Cummings Laboratory, Indian Agric Research Institute, New Delhi-12, INDIA.

SINGH, Tejinder Pal (1945). Cit: India. Lang: Punjabi, Hindi, English, Russian. Acad Degrees: BSc Punjab (1965); MSc Punjab (1967); PhD Punjab (1970). Spec: Plant breeding, genetics (biometrical), plant pathology; soybeans; disease resistance, quality. Exper: Asst Breeder, soybeans (1970-present). Member, Indian Society of Genetics and Plant Breeding, Society for the Advancement of Plant Sciences, Plant Breeding Assoc. Title: Asst Soybean Breeder. Address: Punjab Agric Univ, Ludhiana, INDIA.

SIRCAR, Sourindra Mohan (1908). Cit: India. Lang: Bengali, English. Acad Degrees: BSc Calcutta (1928); Calcutta (1931); PhD Imperial College of London (1937). Spec: Plant physiology; rice; rice hormones, increasing rice production in India. Exper: Research Scholar (1932-34); Asst Lecturer, Calcutta Univ (botany) (1937); established school of research on the physiology of the rice plant (1937-45); Head of the Dept of Biology, Dacca Univ (1946-47); Professor of Agric Botany, Central College of Agric (1949-51); Head of Dept of Botany, Calcutta Univ (1960-67); Director of Bose Institute (1967-present); 120 papers published. Title: Director, Bose Institute. Address: 93/1, Acharya Prafulla Chandra Road: Calcutta-700 009, INDIA.

SISODIA, Narayan Singh (1935). Cit: India. Lang: Hindi, English. Acad Degrees: BSc College of Agric, Gwalior (1958); MSc Indian Agric Research Institute, New Delhi (1960); PhD Manitoba (1964). Spec: Plant breeding, cytogenetics; triticale, wheat, sugarcane; breeding for yield & quality, high temperature tolerant wheat. Exper: Geneticist, sugarcane in Barbados (1965-67); Geneticist & Plant Breeder, triticale & wheat in California (1967-69); Professional Assoc, triticale in Canada (1969); Economic Botanist, triticale and autumn wheat (1970-present); 6 international conferences. Title: Economic Botanist. Address: Wheat Research Station, Powarkheda, Dist Hoshangabad, M.P., INDIA.

SMUTKUPT, Sumin (1934). Cit: Thailand. Lang: Thai, English, German. Acad Degrees: BSc Kasetsart (1957); MSc Cornell (1961); Dr Sci (Agri) Gottingen (1968). Spec: Plant breeding; soybeans; varietal improvement. Title: Acting Head, Dept of Plant Science. Address: Faculty of Agric, Chiengmai Univ, Chiengmai, THAILAND.

SOMAATMADJA, Sadikin (1926). Cit: Indonesia. Lang: Sunda, Indonesian, English, Dutch. Acad Degrees: BSc Agric Research Academy (1956); MSc Mississippi State (1963). Spec: Plant breeding; soybeans, groundnuts, mungbeans; yield quality, insect resistance. Exper: High School Instructor (1951-52); Academy (1963-65); Univ (1966-72); Research Asst (1951-60); Soybean Research Project (1963-65); Section Head for Agric Practices (1965-69); Asst Director (1969-72); Acting Secretary (1971-72); Director, CRIA, Sukamandi (1972-present). Title: Director, Central Research Institute for Agric. Address: LP3 (CRIA) Sukamandi Subang, West Java, INDONESIA.

SOOMROO, Abdul Hayee (1930). Cit: Pakistan. Lang: Sindhi, Urdu, English, (Arabic). Acad Degrees: BSc Sind (1954); MSc Sind (1963); MSc Beirut (1970). Spec: Crop production, entomology; wheat, rice, sorghum, maize, cotton, sugarcane; insect ecology, toxicology, control. Exper: Research Asst, entomology (1954-60); Principal, Agric Training Institute, Sakrand (1960-64); Asst Professor, zoology (1964-73); Assoc Professor, entomology (1973-present); Member, Technical Committee on Plant Protection, Agric Research Council of Pakistan (1974-present). Title: Assoc Professor of Entomology. Address: Sind Agric College, Tandojam, PAKISTAN.

SOSA-CHAVEZ, Ruben (1936). Cit: Mexico. Lang: Spanish, English. Acad Degrees: BSc Fac de Ciencias Biol UANL (1959); MSc ENA (1964); PhD Lund, Sweden (1972). Spec Cytogenetics, plant breeding; potatoes, triticale, prickly-pear, Atriplex spp, mutation plant breeding. Exper: Research Asst, wheat (1964-65); Research Officer in charge of the potato dihaploid program in Mexico (1965-68); Professor at National Agric School in Mexico (1972-74). Title: Head of Plant Breeding. Address: Instituto Nacional De Energia Nuclear, Departmento de Aplicaciones Agropecuarias Insurgentes Sur, 1079, Mexico 18, D.F., MEXICO.

SOTOMAYOR-RIOS, Antonio (1932). Cit: U.S.A. Lang: English, Spanish. Acad Degrees: BSc Puerto Rico (1952); MSc Purdue (1958); PhD Purdue (1964). Spec: Plant breeding, agronomy; sorghum, yams, plantains, bananas; crop management. Exper: Administrator Corozal Substation (5 yrs); Plant Breeder (11 yrs); Commodity Leader, plantains and bananas; Secretary-Treasurer, Caribbean Food Crops Society (3 yrs). Title: Chief, Sorghum Improvement Program. Address: Univ of Puerto Rico, Mayaguez, PUERTO RICO 00708, U.S.A.

SOUZA, Derly Machado de (1923). Cit: Brazil. Lang: Portuguese, Spanish, English. Acad Degree: BSc Sao Paulo (1945). Spec: Plant breeding, agronomy; rice, maize, wheat; breeding and agronomy. Exper: Teaching, agronomy (1946-53); extension service (1953-63); Research Officer in charge of rice investigations (1963-present); President, County Rice Commission (1969-present); rice cultivation research training course, Japan (1968); plant physiology course, Piracicaba (1970); 4 conferences at CIAT and IRRI; Member, Brazilian Rice Commission (1969-present). Title: Scientific Research Chief, Rice and Other Cereal Crops. Address: Instituto Agronomico, C.P. 28, 13.100, Campinas, BRAZIL.

SREERAMULU, Chabolu (1928). Cit: India. Lang: Telugu, English, Hindi. Acad Degrees: BSc Bapatla (1949); MSc Andhra Univ (1963); PhD Purdue (1969). Spec: Plant breeding; maize, sorghum, millet, grain legumes; protein quality and yield. Exper: Research Asst, millets (1949-62); Asst Maize Breeder (1962-66); Plant Breeder in Dryland Research Project (1971-73); Pulse Specialist (1973-present). Title: Pulse Specialist. Address: Lam Agric Research Station, P.O. Guntur 522002, INDIA.

SRIWATANAPONGSE, Sutat (1936). Cit: Thailand. Lang: Thai, English. Acad Degrees: BSc Kasetsart (1960); MSc Purdue (1965); PhD Iowa State (1967). Spec: Genetics, plant breeding; maize, legumes; protein quantity and quality population. Exper: Research Asst, Danish Atomic Energy Agency (1962-63); Lecturer and Corn Breeder, Kasetsart Univ (1967-present). Title: Senior Lecturer and Maize Breeder. Address: Dept of Plant Science, Kasetsart Univ, Bangkok 9, THAILAND.

STANTON, Wilfred Robert (1923). Cit: U.K. Lang: English, French, German. Acad Degrees: BSc Reading Univ (1944); PhD London (1952). Spec: Economic botany (tropical); lower plants (mucorales, aspergillae, basidiomycetes), sago, grain legumes, aroids; solid substrate fermentation and product waste recovery. Exper: Aggregate fruits, apples & potato breeding (1945-52); in charge of West Africa Maize Research Unit, Nigeria (1957-62); Senior Botanist, Nigeria (1957-62); Univ of Malaya (1963-64); Head of Microbiology T.P.I. London (1965-70). Title: Head, Botany Dept. Address: Univ of Malaya, Kuala Lumpur, MALAYSIA.

STECKLE, Jean Margaret (1929). Cit: Canada. Lang: English, French. Acad Degrees: BSc Toronto (1952); MSc Cornell (1956). Spec: Food utilization; grain legumes, sorghum, millet, triticale, cassava; consumer demand and utilization of staple food in tropics and semi-arid regions. Exper: FAO Field Officer-Community Development, Ghana (1958-60); Sierra Leone (1961-66); FAO Officer, Rome, Home Economics Branch (1966-69); Lecturer Consumer Economics, Univ of Ghana (1969-71); Research, Food Use (1971-present); many international conferences and publications. Title: Assoc Director and Liaison Officer for Agric, Food and Nutrition in Africa. Address: B.P. 11007, C.D. Annexe, Dakar, SENEGAL.

STEELE, William Marshall (1932). Cit: U.K. Lang: English, Hausa. Acad Degrees: BSc Durham, England (1955); Diploma Agric Cambridge (1956); PhD Reading (1972). Spec: Agronomy, plant breeding; sorghum, millet, grain legumes; agric in savanna areas and agric botany. Exper: Plant breeder, sesame, soybeans, Nigeria (1957-61); Crop Physiologist, sorghum, Nigeria (1961-65); Vigna Breeder, Nigeria (1965-70); Lecturer, Dept of Botany, Univ of Nairobi, Kenya (1970-74). Title: Special Lecturer. Address: Dept of Agric Botany, Reading Univ, ENGLAND.

STEPHENSON, Audrey Pamela (1944). Cit: Guyana. Lang: English. Acad Degree: BSc UWI (1967). Spec: Agronomy; groundnuts, cowpeas, pigeon peas, mungbeans; varietal selection. Exper: Agric Asst, plant pathology (1967-69); Agric Asst, information (1969-70); Agric Officer, legume research (1970-present). Title: Crop Agronomist (Legumes). Address: Central Agric Station, Mon Repos, East Coast Demerara, GUYANA.

STOCKINGER, Karl Ralph (1917). Cit: U.S.A. Lang: English, German. Acad Degrees: BSc Montana State (1939); MSc Colorado State (1941); PhD Iowa State (1957). Spec: Soil physics, agronomy, chemistry; maize, sorghum, millet; productivity of the tropical savanna soils. Exper: Soil Scientist (soil survey) (1946-49); Soil Scientist (plant-soil-water relations of irrigated crops) (1952-58); Supt Southwestern Irrigated Field Station, Brawley, Calif (1958-66); Soil Scientist, Major Cereals Project, West Africa (1966-74); presently Team Leader of West Africa Major Cereals Project. Title: Soil Scientist and Team Leader. Address: IAR-ABU, PMB 1044, Zaria, NIGERIA.

SUBANDI (1933). Cit: Indonesia. Lang: Indonesian, English. Acad Degrees: BSc Acad for Agric Research, Bogor (1958); MSc Nebraska (1971); PhD Nebraska (1972). Spec: Agronomy; corn; breeding. Exper: Research Asst, corn breeding (1958-63); Corn Breeder (1963-68) & (1972-present); Asst Director, Training & Manpower Development DRIA; Project Coordinator, Legumes & Tuber Crops Research, CRIA (current); Corn Breeding Trainee in India (1963); 8 conferences in Asia and U.S.A. Title: Assoc Director. Central Research Institute for Agric. Address: Central Research Institute for Agric, Jalan Merdeka 99, Bogor, INDONESIA.

SUN, Ming-hsien (1937). Cit: Republic of China. Lang: Chinese, English, Japanese. Acad Degrees: BSc National Taiwan Univ (1960); MSc Minnesota (1966); PhD Purdue (1971). Spec: Plant pathology, plant breeding; corn soybeans, groundnuts, sorghum, sunflowers, vegetables; diseases and disease resistance breeding, especially downy mildew of maize. Exper: Research Asst, corn (1962-67); Asst Specialist, JCRR (1967-71); Senior Specialist JCRR (1971-present); Assoc Professor National Taiwan Univ and National Chung Hsing Univ (1972-present); 12 conferences in Asia, Europe and U.S.A. (1966-present). Title: Senior Specialist, JCRR, and Assoc Professor. Address: Plant Industry Div, Joint Commission on Rural Reconstruction (JCRR), 37 Nan Hai Rd., Taipei, TAIWAN.

SWEARINGIN, Marvin L. (1931). Cit: U.S.A. Lang: English, Portuguese. Acad Degrees: BSc Missouri (1956); MSc Missouri (1957); PhD Oregon State (1962). Spec: Agronomy, plant breeding, seeds; soybeans, cowpeas, corn; soybean production, crop management systems for soybeans. Exper: Teaching Asst (1956-57); Instructor (1957-61); Extension Agronomist, crop production & seed technology (1961-67); USAID-Brazil soybean production (1967-69); Extension Agronomist, Purdue Univ (1969-74). Title: Extension Agronomist (Assoc Professor). Address: Agronomy Dept, Purdue Univ, West Lafayette, Indiana 47907, U.S.A.

SYAMANANDA, Riksh (1929). Cit: Thailand. Lang: Thai, English. Acad Degrees: BSc Wisconsin (1954); MSc Wisconsin (1955); PhD Wisconsin (1958). Spec: Plant pathology, mycology; rice, corn, cassava, soybeans; plant disease control. Exper: Research Asst, corn (1956-58); Post-doctoral Fellow (1960-61); Co-Manager, Project for Strengthening Plant Protection Services in Thailand (UNDP/FAO). Title: Director, Plant Pathology Div. Address: Dept of Agric, Bangkok, THAILAND.

TAHA, Muhallab Ali (1932). Cit: Sudan. Lang: Arabic, English. Acad Degrees: BSc Khartoum (1957); PhD Nottingham (1962). Spec: Agronomy, crop physiology; wheat, groundnuts, soybeans, sugarcane; relationship between growth and yield distribution of dry matter in plants as affected by agronomic treatments. Exper: Research Officer in charge of cotton (1962-64); Senior Cotton Agronomist (1964-71); Senior Lecturer Crop Production (1971-72); Reader in Crop Production (1972-74); many conferences in Africa and Europe. Title: Dean, School of Agricultural Sciences, Univ of Zambia. Address: School of Agricultural Sciences, Univ of Zambia, Box 2379, Lusaka, ZAMBIA.

TALUKDAR, Muhammad Jalaluddin (1923). Cit: Bangladesh. Lang: Bengali, English. Acad Degrees: BSc Dacca (1945); BAg Dacca (1948); MAg Dacca (1962). Spec: Mycology, plant pathology; rice, peanuts, potatoes, wheat; plant diseases caused by fungi. Exper: Research Asst, soil survey (1948-51); mycology and plant pathology (1951-57); Asst Mycologist (1957-66); Mycologist (1966-present); special training in U.K. (1954), in the Philippines (1968). Title: Mycologist and Head of the Division of Mycology and Plant Pathology. Address: Bangladesh Agricultural Research Institute, Dacca-15, BANGLADESH.

TANAKA, Akira (1924). Cit: Japan. Lang: Japanese, English. Acad Degrees: BSc Hokkaido (1947); DA Hokkaido (1960). Spec: Plant physiology, plant nutrition; rice, maize, field beans; crop productivity related to photosynthesis, respiration, fertilizer use. Exper: Research Asst, Hokkaido Univ (1950-62); Research Fellow, Central Rice Research Institute, India (1955-57); Plant Physiologist, IRRI (1962-66); Professor of Plant Nutrition, Hokkaido Univ (1966-present); extensive survey trips and conferences in Asia, U.S.A., South America, Europe, West Africa. Title: Professor of Plant Nutrition. Address: Faculty of Agriculture, Hokkaido Univ, Sapporo, JAPAN.

TANTERA, Dewa Made (1939). Cit: Indonesia. Lang: Indonesian, English. Acad Degrees: BSc Bogor (1961); MSc (1969) and PhD (1972) Louisiana State. Spec: Plant pathology; rice, maize, sorghum, grain legumes; virology and cereal diseases. Exper: Asst Plant Pathologist (1961-68). Title: Head, Plant Pathology Sub-Division, CRIA and Project Director for Rice Research. Address: Central Research Institute for Agriculture, Jalan Merdeka 99, Bogor, West Java, INDONESIA.

TAPIA BARQUERO, Francisco Humberto (1942). Cit: Nicaragua. Lang: Spanish. Acad Degrees: Ing Agron Monterrey (1964); MSc Chapingo (1966). Spec: Plant breeding; maize; yield, disease resistance. Exper: 13 technical papers on maize improvement; development of 2 maize varieties. Title: Agronomy Professor. Address: Escuela Nacional de Agricultura y Ganaderia, Apartado 453, Managua, NICARAGUA.

TATTERSFIELD, Joseph Rex (1932). Cit: Rhodesia. Lang: English. Acad Degrees: BSc (Agric);Natal (1955). Spec: Plant breeding; soybeans, groundnuts, sunflowers; improvement of yield and agronomic characters of soybeans. Exper: Lecturer in crop husbandry at Gwebi Agric College (1956-60); Research Agronomist, Grasslands Research Station, Rhodesia (1961-63); 3-month study visit to Plant Breeding Institute, Cambridge (1967); Legume Breeder (1964-present). Title: Principal Plant Breeder. Address: Salisbury Research Station, Box 8100, Causeway, Salisbury, RHODESIA.

TATWAWADI, Govind Ramchandra (1918). Cit: India. Lang: Marathi, Hindi, English. Acad Degrees: BSc Nagpur Univ (1939); MSc Benaras Hindu Univ (1941). Spec: Plant breeding, genetics, plant physiology; sorghum, paddy, cotton, pulses, oilseeds, wheat; sorghum breeding, seed production. Exper: Research Asst, cotton 1943-44); Lecturer in Botany (1947-60); Rice Specialist (1961-63); Professor of Botany (1964); Rice Specialist (1965-66); Millet Specialist (1967-71); Assoc Dean, research (1972); Head of the Botany Dept (1973); Chief Seed Production Officer (1974). Title: Chief Seed Production Officer. Address: Vidarbha Quality Seeds Limited, Maharashtra, INDIA.

TAURO, Agapito Calantas (1938). Cit: Philippines. Lang: Visayas, Tagalog, English. Acad Degrees: BSc Central Philippine Univ (1959); MSc Philippine Univ (1970). Spec: Agronomy, weed control, statistics; rice, corn, mungbeans, peanuts; weed control, fertilization and cultural management of rice. Exper: Seed production of rice (1959-62); rice research (1962-present); Acting Supt, Visayas Rice and Corn Experiment Station (1968-70); part time instruction in statistics, CPU (1968-69). Title: Agronomist. Address: Visayas Rice Experiment Station, Bureau of Plant Industry, Region No. 6, Hamungaya, Jaro, Iloilo City, PHILIPPINES.

TAYLOR, Timothy Ajibola (1933). Cit: Nigeria. Lang: Yoruba, English, French. Acad Degrees: BSc Univ of Ibadan, Nigeria (1958); PhD Univ of Newcastle, UK (1961). Spec: Entomology, crop protection; cowpeas, soybeans; biology, ecology and integrated control of legume insects. Exper: Research Officer (1958);Entomologist, Nigeria (1961-63); Post-doctoral Research Fellow, Univ Ibadan (1963-65); Lecturer/Senior Lecturer, entomology (1965-69); Professor and Head of Dept Agric Biology (1969-present). Title: Professor and Head, Dept Agric Biology. Address: Dept of Agric Biology, Univ of Ibadan, Ibadan, NIGERIA.

TAYLOR, Willie Ekundayo (1935). Cit: Sierra Leone. Lang: Creole, Temne-English. Acad Degrees: BSc London (1961); Dip Agric Sci Cambridge (1963); PhD London (1968). Spec: Agronomy, entomology (crop protection); cowpeas, soybeans, rice; pest population in relation to cropping pattern and methods. Exper: Research Asst, cereals (1963-65); Lecturer (1968-70); Senior Lecturer (1972-present); presently Leader of Legume Research at Njala Univ College, Sierra Leone; Chief Editor of the Journal of the Sierra Leone Agricultural Society. Title: Senior Lecturer, Crop Protection (Entomology). Address: Faculty of Agric, Agronomy Dept, Njala Univ College, P.M.B. Freetown, SIERRA LEONE.

TEMIZ, Kasif (1938). Cit: Turkey. Lang: Turkish, English. Acad Degrees: BSc, Agric Faculty of Ege (1962); PhD Ege (1970). Spec: Plant Pathology; wheat, barley, potatoes, tomatoes; soil-borne and seed-borne diseases, septoria of wheat. Exper: Research Officer in charge of soil and seed-borne diseases of horticultural crops (1965-69); Plant Pathologist (1969-present). Title: Deputy Director of the Regional Agric Research Institute. Address: Ege Bolge Zirai Arastirma Enstitusu, P.K. 9 Menemen/Izmir, TURKEY.

THANGAM, Menakath Sankaran Nayar (1928). Cit: India. Lang: Malayalam, Tamil, English. Acad Degrees: BSc Agric College, Coimbatore (1951); MSc Coimbatore (1960). Spec: Cytogenetics and plant breeding; sorghum, millet; plant breeding. Exper: Research Asst, sorghum (1951-58) and (1960-64); Teaching Asst, Agric Botany (1964-70); Asst Millet Specialist (1970-71); Supt, Agric Research Station (1971-72); Asst Professor, Agric Botany (1972-present). Title: Asst Professor, Agric Botany. Address: Tamil Nadu Agric Univ, Coimbatore, 3 INDIA.

THOMAS, Reuben Adebour (1932). Cit: Gambia. Lang: English. Acad Degrees: BSc Glasgow (1962); DTA UWI (1963). Spec: Zoology, general agric; rice, sorghum, millets, groundnuts, maize; food production, protein quantity, fertilizer use. Exper: Agric Officer (1964-68); Asst Director Agric (1968-present); 6 conferences in West and East Africa; Committee Member, International African Migratory Locust Organization (1974); Member, Institute of Biology. Title: Asst Director Agric. Address: Agric Headquarters, Cape St. Mary via Banjul, THE GAMBIA.

TIWARI, Rajeshwar (1926). Cit: India. Lang: Hindi, English, Sanskrit, Bhojpuri. Acad Degrees: BSc Patna (1951); MSc Bhagalpur (1961); PhD IARI (1965). Spec: Horticulture, plant breeding, agronomy; vegetable crops, potatoes; breeding and agronomy. Exper: Demonstrator and Senior Research Asst (1951-55); Lecturer, Agric Officer (1955-63); Asst Agronomist (1963-70); Potato Specialist (1971-present); Editor, "UPAJ" and "Dryland Agriculture"; special training, potato culture, radio isotopes and radiation techniques in agric under IAEA/FAO/SIDA. Title: Potato Specialist. Address: All India Coordinated Potato Improvement Project, Agric Research Institute, Kanke, Ranchi-6 (Bihar) INDIA.

TOAN, Tran Huu (1937). Cit: Vietnam. Lang: Vietnamese, French, English. Acad Degrees: BSc Univ of Philippines (1958). Spec: Plant pathology; rice, corn, sorghum, field crops. Exper: Research and teaching (disease control of grains and Irish potato) (1960-68); chemical weed control in paddy rice, corn and soybean (1968-present). Title: Plant Pathologist. Address: Plant Protection Service, 242 Truong Minh Ky, Gia-Dinh, P.O. Box 427, Saigon, SOUTH VIETNAM.

TOLA, Cevallos J. (1941). Cit: Ecuador. Lang: Spanish, English. Acad Degrees: BSc Central Univ, Ecuador (1966); MSc ENA Mexico (1973). Spec: Agronomy, genetics; barley, wheat; breeding. Exper: Research Asst, beans and peas (1965-67); wheat (1967-68); barley (1969-70); Head, Barley Program (1970-present). Title: Head, Barley Program. Address: Instituto Nacional de Investigaciones Agropecuarias (INIAP), Quito, Aptdo. 2600, ECUADOR.

TONGDEE, Amnuay (1934). Cit: Thailand. Lang: Thai, English. Acad Degrees: BSc Kasetsart; MSc Florida (1934). Spec: Agronomy; soybeans groundnuts; cultural pratices, herbicides. Exper: 8 yrs research. Title: Second Grade Officer. Address: Dept of Agric, Bangkhen, Bangkok, THAILAND.

TOSELLO, Geraldo Antonio (1937). Cit: Brazil. Lang: Portuguese, Spanish, English. Acad Degrees: BSc Sao Paulo Univ (1962); Doctor, Sao Paulo (1969); PhD Purdue (1974). Spec: Plant breeding; corn, soybeans, sorghum, wheat, rice, beans, sugarcane; protein, carbohydrate and oil quality and quantity. Exper: Research and teaching (1962-present); special (PhD) training at Purdue in corn biochemistry. Title: Asst Professor. Address: Genetics Dept, Esalq, Sao Paulo Univ, Caixa Postal 83, 13.400 Piracicaba, S. P. BRAZIL.

TOSUN, Osman (1913). Cit: Turkey. Lang: Turkish, German, English. Acad Degrees: BSc Ankara (1936); PhD Ankara (1943); Dozent (Univ) teaching degree Ankara (1948). Spec: Agronomy, plant breeding; wheat barley, oat, rye, lentils, chickpeas; high yield, improving cultural practices. Exper: Research Asst, wheat and rye (1938-43); Assoc Professor of Plant Production and Breeding (1948); Professor and Chairman of Dept (1952, 1955); study tours in U.S. and U.K.; Visiting Professor U.S. (1956-57), Germany (1964, 1969), Holland (1964); Minister of Agric, Turkey (1960-61); various international collections of plant materials; field crop developmental research (1972-present). Title: Professor and Chairman of Plant Growing and Breeding Dept. Address: Univ of Ankara, Ziraat Fakultesi, Ankara, TURKEY.

TREMINIO, Carmen Reynaldo (1948). Cit: Nicaragua. Lang: Spanish, English. Acad Degree: Ing Agric Escuela Nacional (1972). Spec: Soil fertility, plant nutrition; rice. Exper: In charge of rice improvement program (1972-74); Professor of Soil Science (1973); special courses in Spain and Costa Rica. Title: Chief of Rice Improvement Section. Address: Centro Experimental La Calera, Aptdo 592, Managua, NICARAGUA.

TRINH, Ton That (1931). Cit: Vietnam. Lang: Vietnamese, French, English. Acad Degrees: BSc National Institute of Agronomy, France (1954); MSc Ecole Superieure d'Agronomie Tropical, France (1955). Spec: Agronomy; rice, groundnuts, coconuts, soybeans, mungbeans, vegetables, bananas; fertilizer use, food crops for export. Exper: Rubber and Tea Research Asst (1955-56); Secretary General, Ministry of Agric (1962-63); Technical Director for Land Development (1957-62); Dean of College of Agric (1963-64); Professor of Agronomy, College of Agric (1964-67); Minister of Agric (1967-68); Professor of Agronomy (1967-present). Title: Minister of Agric. Address: Ministry of Agric, 58 Nguyen-Binh-Khiem-Saigon, SOUTH VIETNAM.

TSONGA, Ernest Wiliasi (1947). Cit: Malawi. Lang: Chewa, English. Acad Degree: BSc (Agric) Bunda College (1972). Spec: Agronomy, weed control; wheat, barley, cassava, sweet potato, maize; farming systems, including animal production, agric mechanization, rural development, farm management. Exper: Research on crop rotation, soil fertility, herbicides and weed control; research on crops noted above, and sunflower, castor beans, and other minor oilseed plants; conferences in Nigeria and Malawi. Title: Research Agronomist. Address: Chitedze Agric Research Station, Box 158, Lilongwe, MALAWI.

TUFAIL, Muhammad (1937). Cit: Pakistan. Lang: Punjabi, Urdu, English. Acad Degrees: BSc Punjab (1957); MSc Punjab (1959); PhD Nebraska (1971). Spec: Agronomy, plant breeding; sorghum, pearl millet, maize, wheat; evaluation of new varieties. Exper: Research Asst, wheat (1960-62); Research Asst, maize (1962-64); Maize Development Officer, OXFAM (1964-65); Asst Botanist, millets (1966-73); Millet Botanist (1973-present); training at CIMMYT, two conferences U.S. Title: Millet Botanist. Address: Punjab Agric Research Institute, Lyallpur, PAKISTAN.

UMALI, Dioscoro L. (1917). Cit: Philippines. Lang: Tagalog, English. Acad Degrees: BSA Philippines (1939); PhD Cornell (1949). Spec: Genetics; rice, corn; integrated rural development emphasizing small farmers. Exper: Director, rice and corn research, College of Agric, Univ of Philippines (1956-59); Dean, College of Agric (1959-71); Vice President, Univ of Philippines at Los Banos (1958-71); Chairman, Magsaysay Award Foundation (1966-69); Asst Director-General and Regional Representative for FAO (present). Title: Asst Director-General and Regional Representative for FAO. Address: FAO Regional Representative, Phra Atit Road, Bangkok 2, THAILAND.

UPADHYAYA, Yogendra Mohan (1925). Cit: India. Lang: Hindi, English. Acad Degrees: BSc Agra Univ (1944); Assoc IARI (1946); PhD Sydney (1957). Spec: Genetics and plant breeding; wheat, barley, oats; breeding for disease resistance, yield and quality in bread and durum wheats. Exper: Wheat research (1946-present); special training in cereal rust genetics, Australia (1953-55); Visiting Scientist at CIMMYT; attended 4 international conferences in India and U.S.A. Title: Wheat Breeder and Zonal Coordinator for Wheat Research in Central Zone. Address: Wheat Breeding Sub-Station, IARI, Indore, 452001, INDIA.

URRUTIA, Victor M. (1941). Cit: Guatemala. Lang: Spanish, English. Acad Degrees: BSc Florida (1965); MSc Florida (1967); PhD Florida (1972). Spec: Soil fertility, plant physiology; sorghum, forage legumes, corn, bananas; soil fertility, crop management. Exper: Research Asst, Bananas (1963); Research Asst, Soil Testing (1970); Assoc Professor, Tropical Soils (1972); Technical and Scientific Coordinator, Research on Sorghum (1973-present). Title: Technical and Scientific Coordinator. Address: ICTA Galerias Espana, 50 Piso, Zona 9, Guatemala City, GUATEMALA.

UTKHEDE, Rajeshwar Shamrao (1939). Cit: India. Lang: Marathi, Hindi, English, French, Swahili. Acad Degrees: BSc Nagpur (1961); MSc Nagpur (1963); PhD IARI (1967). Spec: Genetics, plant breeding, cytology, statistics; wheat, maize, millet (bulrush), sorghum, soybeans; yield, nutritional balance, disease resistance, adaptability. Exper: Research Fellow, wheat (1963-67); Research Assoc, All-India Millet Scheme (1967-70); Bulrush Millet Breeder, All India Millet Scheme (1971); Maize Breeder, Tanzania (1972-present); 6 conferences, India and Africa; 17 research papers. Title: Maize Breeder. Address: Agric Research Institute, Ukiriguru, P.O. Box 1433, Mwanza, TANZANIA.

VAKILI, Nader G. (1927). Cit: U.S.A. Lang: Persian, English, Spanish. Acad Degrees: BSc Northwestern (1952); MSc Chicago (1953); PhD Purdue (1958). Spec: Plant pathology, genetics; wheat, beans, peas, bananas, tomatoes; inheritance of resistance, pathogenicity. Exper: 7 yrs collections and breeding for United Fruit Company; 2 yrs vegetable disease control at Univ of Florida; 7 yrs research on disease resistance of edible legumes for USDA. Title: Plant Pathologist, ARS-USDA. Address: Federal Experiment Station, P.O. Box 70, Mayaguez, Puerto Rico 00708, U.S.A.

VALDEZ, Luis Americo (1934). Cit: Peru. Lang: Spanish, English. Acad Degrees: Ing Agr National Univ (1960); MSc Chapingo (1970). Spec: Soils and fertilizer; maize; fertilizer use in maize, communication. Exper: Agronomist In Charge, Maize Program (1962-present); Professor, Agronomic Techniques (1970-present); Chief, Public Relations Dept (1971-present); attended international conferences (1965-present). Title: Principal Professor. Address: Universidad Nacional Agraria - La Molina, Aptdo 456, Lima, PERU.

VALENZUELA, Caesar (1941). Cit: Mexico. Lang: Spanish, English. Acad Degree: BSc Narro Superior School of Agric (1967). Spec: Agric engineering; rice and wheat; protein quantity, quality and plant breeding. Exper: Agric Insurance Asst, on rice, wheat, cotton, safflower, sorghum (1967-68); Research Asst, in charge of rice investigations (1968-75); international conferences in Mexico and Colombia. Title : Research Asst, in Charge of Rice Ingestigations. Address: Campo Agricola Experimental del Valle del Fuerte, Apartado Postal No. 342, Los Mochis, Sinaloa, MEXICO.

VALLEJO RINCON, Jorge (1942). Cit: Colombia. Lang: Spanish, English. Acad Degree: Ing Agr, National Univ of Colombia (1971). Spec: Rice; improvement and cultural practices. Exper: Chief of Rice Program, ICA (1972-present). Title: Chief of Rice Program. Address: Instituto Colombiano Agropecuario, Apartado Aereo 233, Palmira, COLOMBIA.

VAN, Thean Kee (1921). Cit: Malaysia. Lang: Chinese, English, Malay. Acad Degree: BSc Univ of Wales (1946). Spec: Cytogenetics, plant breeding; rice, oil palm, maize, sorghum, cocoa; plant breeding, crop improvement. Exper: Plant Breeder (1954-67); Asst Director General of Research, Dept of Agric, Malaysia (1967-71); Asst Director, Agric Research and Development Institute (1971-present); Vice Chairman, International Rice Commission of F.A.O. (1969-73); 20 international conferences. Title: Asst Director, Malaysian Agric & Development Inst. Address: MARDI, P.O. Box 208, Sungai Besi, Serdang, Selangor, MALAYSIA.

van EIJNATTEN, Cornelis L. M. (1930). Cit: Netherlands. Lang: Dutch, English, French, German. Acad Degrees: Lic Wageningen (1955); Dr Agr Sci Wageningen. Spec: Plant breeding, crop production; sunflower, kola, maize; growth analyses. Exper: Maize Research Officer (1956-60); Senior Research Officer, maize, plant introduction, Nigeria (1960-65); Principal Research Officer, Kola, Nigeria (1963-67); F.A.O. Consultant on home gardening (1964-70); Professor of Crop Production (1970-present). Title: Professor and Head, Dept of Crop Science. Address: Faculty of Agric, Univ of Nairobi, P.O. Box 30197, Nairobi, KENYA.

VARGAS, Alberto (1929). Cit: Costa Rica. Lang: Spanish, English. Acad Degree: Univ of Costa Rica (1951). Spec: Agronomy; rice, corn, beans; seed technology, genetics. Exper: Head, Rice Research Project (1954); Head, Crops Research Project (1965); Head, Agronomy Dept (1966); Asst, Research Div (1973-present); conferences in North and South America and Asia. Title: Asst Director, Research Division. Address: Ministerio de Agricultura, San Jose, COSTA RICA.

VARGAS, Rodolfo Saco (1926). Cit: Peru. Lang: Spanish. Acad Degree: Ing Agr National School of Agric, La Molina (1950). Spec: Agronomy; soybeans, peanuts, beans, potatoes, maize. Exper: Worked as Asst, then Sub-Head, then Head of the Dept of Agronomy, Agric Experiment Station, La Molina (1951-66); Head, Dept of Oil Seeds at La Molina (1967-70); Supervisor of Oil Seeds Investigations, DGIA (1971); Sub-Director of Coordination, then Sub-Director of Agric Investigations, DGIA (1972-74); foreign training included: National Institute of Agronomic Studies, Spain (1953-54), Inter-American Institute of Agric Sciences, potatoes, (1956), agric production physiology (1962), and National Univ of Colombia, economic botany, (1963); Visiting Professor, annual oilseeds, National Agric Univ, La Molina (1965-68); attended international conferences in Chile, Argentina, and Venezuela; 46 publications. Title: Sub-Director of Agric Investigations. Address: Direccion General de Investigacion Agraria, Aptdo. 2791, Lima, PERU.

VASQUEZ SALAZAR, Arturo (1943). Cit: Peru. Lang: Spanish, English. Acad Degrees: Ing Agr, Univ Nacional del Altiplano (1967); MSc ENA-Chapingo (1970). Spec: Agronomy, rural development; maize, wheat; protein quality and quantity in starchy maizes, diffusion of technology. Exper: Training at CIMMYT (1968-69); Professor at La Molina (1970-72); 12 conferences in Latin America; rural development program for smallholders. Title: Coordinator General. Address: Direccion General de Investigacion Agraria, Proyecto Cajamarca-La Libertad, Jiron Lima 560, Aptdo 169, Cajamarca, PERU.

VAYALAPPALLIL, John T. (1932). Cit: India. Lang: Malayalam, Tamil, English, Telugu. Acad Degrees : BSc Madras (1952); MSc Madras (1956); PhD Madras (1961). Spec: Plant virology, pathology; rice; breeding rice for disease resistance, serology. Exper: Research Asst (1958-60); Research Fellow, IRRI (1963-64); Research Fellow, Canadian Dept of Agric (1964-66); Plant Pathologist (Rockefeller, USAID) (1966-73); Senior Plant Pathologist (1973-present). Title: Senior Plant Pathologist. Address: All India Coordinated Rice Improvement Project, Rajendranagar, Hyderabad-500 030, A.P., INDIA.

VEGA, Juan Gerardo (1934). Cit: Ecuador. Lang: Spanish. Acad Degrees: Ing Agr, Central Univ Ecuador (1960); MSc Colombian Agric Inst (1970). Spec: Plant pathology, virology; potatoes; effects of virus on potato production. Exper: Professor (1960-62); plant pathology training at Turrialba (1962-64); Chief of Plant Pathology at agric sub-station; Plant Pathology Chief at experiment station; Plant Path Professor at Univ; two conferences in Colombia. Title: Chief of Plant Pathology Dept. Address: Estacion Experimental Santa Catalina, INIAP, Aptdo Aereo 2600, Quito, ECUADOR.

VELA-CARDENAS, Mario (1938). Cit: Mexico. Lang: Spanish, English. Acad Degrees: BSc Coahuila (1958); MSc Iowa State (1963); PhD Iowa State (1968). Spec: Agronomy, plant pathology, genetics; wheat and general cereals; research, extension, production of major food crops. Exper: Wheat research, INIA (1959-63); in charge, oats program (1963-67); in charge, cereals program, INIA (1968-71); Chief, Cereals Production Section, seed (1971); seed production, Chief of Dept, (1972-present); published 12 articles; attended 8 international conferences. Title: Chief, Dept Campos Directos-Pronase. Address: Progreso num 3, Coyoacan 21, D.F. MEXICO.

VENKATESWARLU, Jagarlapudi (1934). Cit: India. Lang: Telugu, English, Hindi. Acad Degrees: BSc Andhra Univ (1955); MSc Osmania Univ (1960); PhD Indian Agricultural Research Inst (1963). Spec: Soil science, agronomy; rice, sorghum, millet, pigeon pea, cowpea; soil fertility and use of fertilizer, crop husbandry. Exper: Research Asst in Soil Fertility Investigations (1956-60); Pool Officer, IAEA/FAO Investigations on Rice Fertilization (1965-67); Assoc Professor in Soil Science (1967-71); Chief Scientist, Dryland Research and Extension (1972-present); Editor, Indian Society of Soil Science (1964-present); more than 40 research papers. Title: Chief Scientist, All India Coordinated Research Project for Dryland Agriculture. Address: Soil Conservation Research Demonstration & Training Centre, Old Malakpet, Hyderabad-500036, INDIA.

VERA, Gustavo Anibal (1935). Cit: Ecuador. Lang: Spanish, English. Acad Degrees: Ing Agr Quito (1962); MSc Purdue (1969); PhD Purdue (1973). Spec: Plant breeding, genetics; maize, wheat, potatoes; maize breeding, improvement of quality in crops. Exper: Asst, phytopathology (1959-60); Professor, agronomy, FAO (1960); Asst, Maize Improvement Program (1960-61); Asst, INIAP, maize program (1962-67); Chief of Program (1967-71); Experiment Station Director (1973-present). Title: Director. Address: Santa Catalina Experiment Station - INIAP, P.O. Box 340, Quito, ECUADOR.

VERA, Vinicio Ivan (1943). Cit: Ecuador. Lang: Spanish, English. Acad Degree: Ing Agr Guayaquil (1970). Spec: Entomology; rice, maize, cotton, bananas, soybeans; chemical, biological, and integrated control of insects. Exper: Research Asst (1970-present). Title: Research Asst. Address: Estacion Experimental "Boliche", INIAP, Casilla 7069, Guayaquil, ECUADOR.

VIEIRA, Clibas (1927). Cit: Brazil. Lang: Portuguese, English, Spanish. Acad Degrees: Ing Agr, Vicosa (1952); MSc California (1958); Dr Agr Vicosa (1961). Spec: Agronomy, breeding; beans, soybeans; breeding, cultural practices, fertilizer use. Exper: Extension Agronomist (1953-54); Asst Professor, Federal Univ of Viscosa (1958-62); Dean, Graduate School, FUV (1965-69); Research Fellow, National Research Council (1968-present); Chief, Dept of Plant Science, FUV (1973); Director, National Bean Project, Ministry of Agric (1972-74); Board of Trustees, International Potato Center (1974-present); participated in 10 Latin American conferences and seminars (1964-present). Title: Professor of Agronomy and Chief, Dept of Science and Technology. Address: Universidade Federal de Vicosa, Vicosa, MG, BRAZIL.

VILLACIS SANTOS, Jose Eduardo (1937). Cit: Ecuador. Lang: Spanish. Acad Degrees: Ing Agr Guayaquil (1965); MSc Chapingo (1970). Spec: Entomology; maize, rice, soybeans, cotton, bananas, oil palm, sesame; economic entomology. Exper: Entomology Asst, Experiment Station, INIAP (1963-67); Professor, Entomology, Technical Univ (1967-73); attended four international conferences on nematodes and entomology. Title: Chief, Dept of Entomology. Address: Estacion Experimental Boliche INIAP, Aptdo 7069, Guayaquil, ECUADOR.

VIVAR, Hugo Enrique (1940). Cit: Ecuador. Lang: Spanish, English. Acad Degrees: BSc Univ of Loja, Ecuador (1964); MSc Turrialba (1968); PhD North Dakota State (1973). Spec: Agronomy, plant pathology; barley, wheat, cocoa; small grain breeding. Exper: Research Asst, wheat (1963-64); Professor in Agronomy, Univ of Loja (1965-66); Research Asst, *Solanum* breeding, IICA (1966-68); Research Asst, barley, North Dakota State Univ (1969-73). Title: Professor. Address: Rama de Genetica, Colegio de Postgraduados, Chapingo, MEXICO.

VON CHONG, Cesar (1936). Cit: Panama. Lang: Spanish, English, French. Acad Degrees: BSc Iowa State (1959); MSc California (1963). Spec: Agronomy, plant pathology; rice, corn, beans; rice pathology & breeding, aquatic weeds. Exper: Agronomist (1959-61); Plant Pathologist (1963-65); Research Scholar at IRRI (1965-66); Pathologist and Research Officer in Charge of Rice Program, Ministry of Agric (1966-69); Director, National Institute of Agric (1970); Research Officer, Rice Pathology and Breeding/Professor of Agronomy, Univ of Panama (1971-72); Professor of Weed Control, Faculty of Agronomy (1974). Title: Biologist, Aquatic Weed Control. Address: Panama Canal Company, Dredging Div, Oil Pollution and Debris Control Branch, Drawer O, Gamboa, CANAL ZONE.

VOYSEST VOYSEST, Oswaldo ([illegible]3). [illegible]t: Peru. Lang: Spanish, English, F[illegible]. [illegible]cad Degrees: Ing Agr La Molina (1957); [illegible]ornia (1963); PhD Michigan State (1970). [illegible] Agronomy, plant breeding and genetics; grain legumes; disease resistance and productivity. Exper: Training in bean breeding at CIMMYT (1958-59); Research Asst, beans (1959-70); Assoc Professor, genetics & statistics (1964-67); Research Officer in charge of Bean Investigations (1970-present); extensive travel in the Americas. Title: Head of Grain Legume Dept. Address: La Molina Agric Experiment Station, Aptdo 2791, Lima 1, PERU.

WABWOTO, Bernard A. Nganyi (1937). Cit: Kenya. Lang: Luhya, Swahili, English, Russian. Acad Degrees: BSc Patrice Lumumba Peoples' Univ (1969); MSc Patrice Lumumba (1970). Spec: Agronomy, genetics, plant breeding; triticale, wheat; breeding triticale. Exper: Plant Breeder, wheat, barley, triticale (1970-present); Plant Breeder in charge of durum and triticale programs (1973-present); research training at CIMMYT (Feb-Oct 1972); three FAO conferences on wheat in Iran (1973); Triticale Symposium, Mexico (1972); extensive travel in East Africa, U.S.S.R., Middle East, Western Europe and Mexico. Title: Plant Breeder. Address: Plant Breeding Station, Dept of Agric, P.O. Njoro, KENYA.

WALLACE, Donald H. (1926). Cit: U.S.A. Lang: English. Acad Degrees: BSc Utah State (1953); PhD Cornell (1958). Spec: Plant breeding, genetics, physiological genetics; dry beans, cabbage & other vegetables; breeding dry beans, yield physiology, self-incompatibility of cabbage, physiological genetics, disease resistance. Exper: Breeding and genetic research with dry beans, cabbage, carrots, cauliflower; Visiting Professor of Agronomy for 2 yrs in the Philippines; Co-editor of Vegetable Training Manual for use in Philippines; several trips to Latin America. Title: Professor of Vegetable Crops and Plant Breeding. Address: Vegetable Crops Dept, Cornell Univ, Ithaca, New York, 14850 U.S.A.

WALTER, Carle Julian (1939). Cit: U.K. Lang: English. Acad Degrees: D.I.C.T.A. Imperial College of Tropical Agriculture (1960); MSc Univ of the West Indies (1966); PhD Univ of Adelaide (1971). Spec: Agronomy, crop ecology, soil science; tropical root crops, corn, soybeans, pineapples, legumes; crop production, agric development. Exper: Vegetable & root crop research (1960-62); Chief Agric Extension Officer, Antigua (1962-64); part-time Lecturer, Eastern Caribbean Farm Institute (1967); Adviser to the Minister of Agric, Lands and Fisheries, Antigua (1971-73); Agric Adviser, Caribbean Community Secretariat (1973-present). Title: Agric Adviser. Address: Caribbean Community Secretariat, P.O. Box 270, St. Georges, Grenada, WEST INDIES.

WANG, Ching-I (1945). Cit: Republic of China. Lang: Chinese, English. Acad Degrees: BSc National Taiwan Univ (1968); MSc Taiwan (1970). Spec: Genetic statistics; rice, wheat; rice quality improvement, field experimental design. Exper: Research Asst, wheat (1969-70); Project Asst, rice (1970-71); Junior Rice Specialist (1971-73); Asst Rice Specialist (1973-present). Title: Asst Rice Specialist. Address: Plant Industry Division, Joint Commission on Rural Reconstruction (JCRR), 37 Nan-hai Road, Taipei, TAIWAN.

WATHANAKUL, Luansark (1936). Cit: Thailand. Lang: Thai, English, Laos. Acad Degrees: BSc Kasetsart (1960); MSc Philippines (1964). Spec: Plant pathology, agronomy; rice; plant virus diseases. Exper: Research Asst, rice (1959-60); 3rd Grade Official (1960-62); 2nd Grade Official (1962-72); 1st Grade Official in Charge, Rice Pathology Branch (1972-present); attended: 1 symposium at IRRI, 12 conferences in Thailand and Philippines. Title: Chief, Rice Pathology Branch. Address: Plant Pathology Div, Dept of Agric, Bangkhen Bangkok-9, THAILAND.

WEBSTER, Orrin J. (1913). Cit: U.S.A. Lang: English. Acad Degrees: BSc Nebraska (1934); MSc Nebraska (1940); PhD Minnesota (1950). Spec: Plant breeding, genetics; sorghum, corn, pearl millet; sorghum genetics, population breeding. Exper: Soil Conservation Service, USDA (1935-36); Dry Land Agric Div, USDA (1936-43); Forage and Cereal Crops Div, USDA (1943-51); Advisor British Colonial Service, Nigeria (1951-52); Project Leader, sorghums, USDA (1952-63); Director-Coordinator USDA/AID Major Cereals Project, West Africa (1963-71); Supervisor, USDA/ARS Sorghum Project in Puerto Rico (1971-present). Title: Research Agronomist. Address: Federal Research Station, P.O. Box 70, Mayaguez, Puerto Rico, 00708, U.S.A.

WEERAPAT, Praphas (1933). Cit: Thailand. Lang: Thai, English. Acad Degrees: BSc Kasetsart (1959); MSc Texas A&M (1964); PhD Missouri (1971). Spec: Plant science, plant breeding; rice, oats; disease and insect resistance. Exper: Rice breeding in Thailand (1958-present); Chief, Plant Science Branch, Ag Science Society of Thailand (1973-present); teaching advance plant breeding at Kasetsart Univ. Title: Chief, Rice Breeding Branch. Address: Dept of Agric, Ministry of Agric and Cooperatives, Bangkok, THAILAND.

WEERARATNE, Hector (1926). Cit: Sri Lanka. Lang: Sinhala, English. Acad Degrees: Dipl Ag Peradeniya, Sri Lanka (1948); BSc Philippines (1963); PhD North Dakota State (1970). Spec: Agronomy, plant pathology; rice; disease and pest resistance, high nitrogen response, quality. Exper: Research; special training: conferences. Title: Research Officer/Coordinator, National Rice Breeding Project. Address: Central Rice Breeding Station, Batalagoda Ibbagamuwa, SRI LANKA.

WHIGHAM, David Keith (1938). Cit: U.S. Lang: English. Acad Degrees: BSc Iowa State (1966); MSc Iowa State (1969); PhD Iowa State (1971). Spec: Crop production and physiology; soybeans, maize, sorghum, millet; crop management to maximize food production. Exper: Teaching Asst, agronomy (1966-67); Instructor, agronomy (1968-70); Field Trials Officer, coordinating maize, sorghum and millet testing in Uganda, USDA/USAID attached to EAAFRO (1971-72); Agronomist, in Charge of International Soybean Testing, INTSOY (1973-present); attended nine conferences in Africa and U.S. Title: Agronomist, International Soybean Program (INTSOY). Address: Dept of Agronomy, Univ of Illinois, Urbana, Illinois 61801, U.S.A.

WIJEWARDENE, Philip Rayvatha (1924). Cit: U.K. Lang: Sinhala, English. Acad Degrees: BA Cambridge (1948); MA Cambridge (1951); AMP (Dip) Harvard Business School (1961). Spec: Agric engineering, business management; rice, coconut; multiple cropping, integrated "systems mechanization" of rural tropical farming at intermediate levels of technology. Exper: Design and development of the "Landmaster" two-wheel power tiller, and market development throughout Asia and East and West Africa; design and development of the 4 W.D. "Farmobile"; Consultant in agric engineering design technology for Asian conditions and markets; Advisor to Malaysian Agric Research and Development Institute (MARDI); several conferences on rice mechanization, water management, and coconut in Asia, Europe, and U.S.A. Title: FAO Expert in Agric Engineering Research. Address: c/o UNDP Office, P.O. Box 2544, Kuala Lumpur, MALAYSIA.

WILKENING, Walter T. (1925). Cit: U.S.A. Lang: English. Acad Degrees : BSc Missouri (1949); MSc Missouri (1963); PhD Wisconsin (1965). Spec: Extension education and administration; all crops; program review and development as related to improving crop yields in farmers' fields. Exper: Missouri County Agent (1949-60); Extension Advisor, Bihar Agric College, Bihar, India (1960-62); Fellow, National Center for Advanced Study in Cooperative Extension (1963-65); Campus Coordinator, India Programs, Univ of Missouri (1965-69); Extension Program Advisor, Orissa Univ of Agric and Technology, Bhubuneswar, Orissa, India (1969-71); Extension Advisor and Chief of Party, Univ of Missouri India Programs, Bhubaneswar (1971-73). Title: Extension Information Specialist, Instructional Media. Address: 205 Whitten Hall, Univ of Missouri, Columbia, Missouri 65201, U.S.A.

WILMOT, Edward Travers (1924). Cit: U.K. Lang: English, French, Chewa. Acad Degrees: BSc Cambridge (1948); MSc Cambridge (1950); Agric Dip Cambridge (1950). Spec: Natural science, crop and animal husbandry, farm management; bananas, cotton, sugar, rice, coconuts, maize, groundnuts; agric administration, development programs. Exper: District Extension Officer (1950-62); Regional Officer (1962-65); Deputy Director (1965-67); Under Secretary and Deputy Secretary, Natural Resources Ministry of Malawi (1967-72); Agric Advisor, Barbados (1972-present). Title: Agric Adviser. Address: P.O. Box 167, Bridgetown, BARBADOS.

WOO, Shiu-Chu (1932). Cit: Republic of China. Lang: English, Chinese. Acad Degrees: BSc Taiwan (1953); MSc North Dakota State (1961); PhD Washington State (1969). Spec: Plant breeding, genetics; rice, wheat; semi-dwarf crop plants with disease resistance. Exper: Teaching plant breeding, genetics, and induced mutation; attended 4 FAO meetings on use of mutations for crop improvement. Title: Assoc Research Fellow. Address: Institute of Botany, Academia Sinica, Nankang, Taipei 115, TAIWAN.

WOREDE, Melaku (1936). Cit: Ethiopia. Lang: Amharic, English. Acad Degrees: BSc College of Agri, Hsiu (1960); MSc Nebraska (1963); PhD Nebraska (1974). Spec: Agronomy and plant breeding; wheat, barley, sorghum, maize, various legumes and pulses; preservation and proper utilization of plant genetic resources, improvement of cereals and multiplication/distribution of improved seeds. Exper: Teaching plant sciences at Ambo and Jimma (1960-64); Technical Director, Dept of Agric, Province of Eritrea (1964-67); Agronomist, HVA Sugar Estates (1967-69); Director Jimma Institute of Agric (1969-71). Title: Agronomy Expert and Production Chief. Address: Plant Production and Protection Div, Ministry of Agric, P.O. Box 1232, Addis Ababa, ETHIOPIA.

WU, Henry Bang-Fang (1939). Cit: Republic of China. Lang: Mandarin, English. Acad Degrees: BSc Taiwan (1961); MSc Philippines (1966); PhD Cornell (1971). Spec: Plant physiology, biochemistry; soybeans, maize, tomatoes, mungbeans. Exper: Research Asst, National Taiwan Univ, tobacco (1960-63); Research Scholar, IRRI (1964-66); Research Asst, Cornell, maize (1966-70); Asst Professor, National Taiwan Univ, sweet potatoes (1971-72); Plant Physiologist AVRDC (1972-present). Title: Plant Physiologist. Address: Asian Vegetable Research and Development Center (AVRDC), P.O. Box 42, Shanhua, Tainan, TAIWAN.

YADAVA, Ram Baliram (1941). Cit: India. Lang: Hindi, English. Acad Degrees: BSc Univ of Gorakhpur (1961);MSc Banaras Hindu Univ (1963); PhD Banaras (1969). Spec: Plant physiology; rice, sugarcane, nut crops, cowpeas, guar, sorghum, oats and several pasture legumes; plant nutrition, growth regulators, physiological and biochemical aspects of plant growth, metabolic end products and seed physiology. Exper: Senior Physiological Asst, Kanpur (1963-64); PhD candidate (1964-68); Research Officer in charge of Regional Arecanut Research Station (1968-69); Asst Plant Physiologist, Central Plantation Crops Research Institute, (1969-72); Junior Plant Physiologist, Indian Grassland and Fodder Research Institute (1972-74); Senior Research Fellowship, ICAR, New Delhi; Research Fellowship U.G.C., New Delhi. Title: Junior Plant Physiologist. Address: Indian Grassland and Fodder Research Institute, Jhansi, U.P., INDIA.

YAYOCK, Joseph Yusufu (1944). Cit: Nigeria. Lang: Kafanchan, Hausa, English. Acad Degrees: BSc Ahmadu Bello Univ, Zaria (1968); MSc Southern Illinois (1970); PhD candidate, Kansas State (1972-73) and continuing work on degree on a part-time basis. Spec: Soil fertility, agronomy; groundnuts, cowpeas; fertility and crop production. Exper: Groundnuts, cowpeas, flax (1971-72); agronomic work on aspects of fertility and population densities with groundnuts, cowpeas (1970-present). Title: Research Fellow (Agronomy). Address: Agric Research Station, P.O. Box 1062, Kano, NIGERIA.

YOSHII, Kazuhiro (1939). Cit: Japan. Lang: Japanese, Spanish, English. Acad Degrees: BSc Nagoya (1962); MSc Hawaii (1968); PhD Wisconsin (1972). Spec: Plant pathology; soybeans, beans, mungbeans, peas, lentils, broadbeans; legume diseases. Exper: Junior Chemist, pesticide (1962-65); Research Asst, peas and beans (1968-72); Plant Pathologist, legumes (1972-present); 3 conferences in U.S.A. Title: Plant Pathologist. Address: Institute Colombiano Agropecuario, Aptdo Aereo No. 233 Palmira, Valle-COLOMBIA.

YOUNG, Donald A. (1929). Cit: Canada. Lang: English. Acad Degrees: BSc McGill (1952); MSc Wisconsin (1954); PhD Wisconsin (1957). Spec: Genetics, plant pathology; potatoes; variety development, pest management. Exper: Research Officer (1957-present); Project Leader, Potato Breeding (1968-present); Program Manager, Potato Research (1972-present); Honorary Research Assoc, Univ of New Brunswick (1966-present); Foundation for Plant Breeding, Wageningen, Netherlands (1971-72). Title: Senior Research Scientist. Address: Agriculture Canada Research Station, Box 280, Fredericton, N.B., CANADA.

YUNUS, Ahmad (1928). Cit: Malaysia. Lang: Malay, English. Acad Degrees: BSc Belfast (1957); BAgr Cambridge (1958). Spec: Entomology; rice, oil palm, coconuts; economics of pest control. Exper: Research Entomologist (1959-62); Senior Entomologist in charge of research on pests of smallholders' crops in Peninsular Malaysia (1963-70); Director Crop Protection Service (1971-73); Director Agric Planning and Development (1974-present). Title: Director, Planning and Development. Address: Dept of Agric HQ, Jalan Gallagher, Kuala Lumpur, MALAYSIA.

ZAN, Kaung (1923). Cit: Burma. Lang: Burmese, English. Acad Degrees: BSc Poona, India (1948); PhD D.I.C. London (1956). Spec: Plant pathology; rice, fiber crops, sugarcane, groundnuts, sesame, soybeans; yield, quality, insect and disease resistance. Exper: Asst Rice Breeder (1948-53); Asst Research Officer (1957-58); Plant Pathologist (1958-63); Director, Agric Research Institute (1963-present); 10 conferences in Asia, Europe and Middle East. Title: General Manager. Address: Agricultural Research Institute, Gyogon, Insein P.O., Rangoon, BURMA.

ZEHSAZIAN, Hassan (1938). Cit: Iran. Lang: Persian, English, Turkish. Acad Degrees: BSc Tabriz (1961); MSc (1966) and PhD (1969) Oregon State. Spec: Plant pathology; wheat, chickpeas, beans, tomatoes, soybeans; fungus diseases. Exper: Research Asst on Verticillium wilt (1964-68); Assoc Professor of Plant Pathology (1971-present); Assoc at Experiment Station, California (1972-73). Title: Associate Professor of Plant Pathology. Address: College of Agric, Univ of Tabriz, Tabriz, IRAN.

ZUMMO, Natale (1931). Cit: U.S.A. Lang: English, Spanish, Italian. Acad Degrees: BSc Southeastern Louisiana Univ (1956); MSc Louisiana State (1958); PhD Louisiana State (1960). Spec: Plant pathology, plant breeding; sorghum, sugarcane, maize, millet; varietal resistance to diseases, virus diseases. Exper: Research on sugarcane and sorghum diseases (1960-present). Title: Senior Research Fellow, Plant Pathology. Address: Institute for Agric Research, Ahmadu Bello Univ, PMB 1044, Zaria, NIGERIA.

COUNTRY-CROP LISTING OF SPECIALISTS

Names of specialists in the following Country-Crop list are arranged alphabetically by country and within country. The specialist is listed under the country in which he is now located, not by his nationality.

Following the name of each scientist is his profession or major interest and the food crop or crops in which he specializes, plus his interest, if any, in protein content and quality. The column "Food Legumes" covers those grain types used extensively for food in developing countries -- namely, beans, cowpeas, pigeon peas, chickpeas, mung beans, soybeans, and groundnuts. "Roots and Tubers" include potatoes, sweet potatoes, yams, and cassava.

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein Content
	AFGHANISTAN									
AIAR, A.		Agronomy	X	X	X		X			
AMINI, H. J.		Plant Breeding	X		X		X			
GHAIRAT, G. S.		Agronomy	X	X					X	
JALALYAR, M. S.		Plant Breeding					X			
NOORY, M. A.		Agronomy	X							
SAIDY, N. A.		Horticulture					X	X		
SALAM, A.		Biochemistry	X	X	X					
	ALGERIA									
BAKHTRI, N.		Agronomy	X			X				
BON, M.		Agronomy	X		X	X				
BOUATTOURA, N.		Plant Breeding	X		X	X			X	
KADRA, N.		Agronomy	X	X	X	X				
	ARGENTINA									
BOKDE, S.		Plant Breeding			X					
CENOZ, H. M.		Agronomy						X		X
DELHEY, R. R.		Plant Breeding						X		

ARGENTINA (Continued)		Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein Content
FOLQUER, F.	Plant Breeding						X		
JETTER, W.	Agronomy		X						
KRAPOVICKAS, A.	Taxonomy					X			
MENDIBURU, A. O.	Plant Breeding	X				X	X		
PIETRARELLI, J. R.	Agronomy					X			
BAHRAIN									
AL-MOHAMMED, N. T.	Plant Breeding	X			X				
BANGLADESH									
AHMAD, M. S.	Plant Breeding	X	X						
ALAM, M. Z.	Entomology		X						
ALAM, S.	Entomology		X						
CHOUDHURY, M. A.	Plant Breeding	X	X	X	X				
HASANUZZAMAN, S. M.	Plant Breeding	X	X	X	X				
ISLAM, M. A.	Soil Science	X	X						
MIAH, S. A.	Plant Pathology	X	X			X			
TALUKDAR, M. J.	Plant Pathology	X	X			X	X		
BARBADOS									
WILMOT, E. T.	Agric.Administration		X	X		X			
BHUTAN									
LAL, M. S.	Plant Breeding	X				X		X	
BOLIVIA									
AVILA, G. L.	Plant Breeding			X		X			
GANDARILAS, H.	Plant Breeding	X					X		

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein Content
	BRAZIL									
ALBUQUERQUE. M. D.		Phytotechnologist						X		X
ALMEDIDA, F. C. G.		Plant Breeding						X		
ANDRADE, E. B.		Plant Breeding			X				X	
ANTUNES, I. F.		Plant Breeding					X			
BARBOSA, E. H.		Plant Breeding					X			X
BARBOSA, H. M.		Plant Breeding			X					
BESSA, M. G.		Agronomy						X		
CAMARGO, C. E.		Plant Breeding	X			X				X
CARMONA, P. S.		Agronomy		X						
da CONCEICAO, A. J.		Agronomy						X		
CORREIA, E. de B.		Agronomy			X		X			
COSTA, A. S.		Plant Virology			X		X		X	
COSTA, J. G.		Agronomy					X			X
CUNHA, M. A. P.		Agronomy			X				X	
DAVIS, M. D.		Agronomy		X						
DOBEREINER, J.		Soil Microbiology					X		X	
DRUMMOND, G. A.		Plant Breeding			X				X	X
GROSZMANN, A.		Plant Bfeeding			X		X			
GUAZZELLI, R. J.		Plant Breeding		X			X			
HEIDRICH-SOBRINHO, E.		Plant Breeding	X		X					X
KRUTMAN, S.		Plant Breeding					X			
LEMOS, M. A.		Plant Breeding	X	X	X				X	X
MAFRA, R. C.		Plant Breeding					X	X		
MASCARENHAS, H. A. A.		Agronomy					X			
MIRANDA, P.		Plant Breeding			X		X		X	

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein Content
	BRAZIL (Continued)									
MIYASAKA, S.		Agronomy					X			
da MOTA, R. V.		Agronomy		X						
de MOURA, R. M.		Plant Pathology						X		
OLIVEIRA, A. F.		Plant Breeding		X			X			
OLIVEIRA, E. A.		Plant Pathology					X			
de OLIVEIRA, J. P.		Agronomy						X		
PAIVA, J. B.		Agronomy					X			
PATERNIANI, E.		Plant Breeding			X					X
PEREIRA, A. S.		Plant Breeding						X		
POMPEU, A. S.		Plant Breeding					X			X
de QUEIROZ, G. M.		Agronomy					X	X		
QUEIROZ, G. M.		Agronomy					X	X		
QUEIROZ, M. A.		Plant Breeding			X					
dos REIS, A. V.		Statistics			X		X			
SAMPÁIO, C. V.		Agronomy						X		
SANTIAGO, J. C.		Plant Pathology	X			X				
dos SANTOS, E. O.		Plant Breeding						X		
SENA, Z. F.		Agronomy		X				X		
SILVA, A. R.		Plant Breeding	X							
SILVA, J.		Plant Breeding		X	X				X	X
SILVA, W. J.		Plant Breeding			X				X	X
SILVEIRA, E. P.		Plant Breeding		X						
SOUZA, D. M.		Plant Breeding	X	X	X					
TOSELLO, G. A.		Plant Breeding	X	X	X		X		X	X
VIEIRA, C.		Agronomy					X			

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein Content
	BURMA									
ZAN, K.		Plant Pathology		X			X			
	CHILE									
BARRIGA, P.		Agronomy	X		X	X				X
BRAVO, A. E.		Plant Breeding					X			X
CAGLEVIC, M. J.		Plant Pathology	X		X	X				
CONTRERAS, A.		Agronomy					X			
CUBILLOS, A. G.		Plant Breeding						X		
KRARUP, A.		Plant Breeding					X			
LOPEZ, H. V.		Agronomy	X					X		
PARODI, P. C.		Plant Breeding	X				X			X
RAMIREZ, A. I.		Plant Breeding	X			X				
	COLOMBIA									
ALVARADO, L. F.		Plant Physiology						X		
ARBOLEDA-RIVERA, F.		Plant Breeding		X	X		X			X
BARRIGA-OLIVARES, R.		Plant Pathology		X				X		
BASTIDAS, G.		Plant Breeding					X			
BUSTAMANTE, E.		Plant Pathology	X		X					
CAMACHO, L. H.		Plant Breeding					X			
CARDONA, C.		Plant Pathology					X			X
CASSALETTE DAVILA, C.		Plant Breeding			X				X	
DIAZ, E.		Plant Breeding			X		X		X	
GARCIA, J. I. A.		Agronomy					X			
GOMEZ, P. L.		Plant Breeding						X		X
GONZÁLEZ FRANCO, J. A.		Plant Breeding		X	X		X			
GUZMAN, E.		Agronomist					X			

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein Content
	COLOMBIA (Continued)									
MARTINEZ-LOPEZ, G.		Plant Pathology	X		X	X		X		
OROZCO, S. H.		Plant Breeding					X			
ROSERO, M. J.		Agronomy	X	X		X				
SALDARRIAGA, A.		Agronomy		X	X		X			
VALLEJO-RINCON, J.		Agronomy		X						
YOSHII, K.		Plant Pathology					X			
	COSTA RICA									
ARAUJO, J. E. G.		Soil Science								
BONILLA, L. N.		Plant Breeding					X		X	
ECHANDI, R.		Plant Breeding			X		X			X
GAMEZ, R.		Plant Virology			X		X	X		
MURILLO V., J. I.		Plant Breeding		X						
VARGAS, A.		Agronomy		X	X		X			
	CYPRUS									
HADJICHRISTODOULOU, A.		Plant Breeding	X			X				X
	ECUADOR									
AREVALO, M.		Plant Breeding		X						
CALERO, E. F.		Plant Breeding					X			
CASCANTE, J. F.		Weed Control	X		X	X		X		
CEVALLOS-DAVILA, A. L.		Entomology			X		X			
CORTAZA, C. F.		Plant Breeding			X		X			X
DELGADO, J. C.		Plant Pathology		X						
ESCOBAR PADILLA, R. E.		Plant Breeding	X			X				
FUENTES, G. E.		Plant Breeding	X		X					
GALARRAGA G., J. R.		Seed Production								

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein Content
	ECUADOR (Continued)									
LALAMA HIDALGO, M. L.		Plant Breeding	X			X				
LARREA, P. E.		Agronomy	X	X	X	X				
MAKONNEN, D.		Plant Breeding	X		X	X			X	X
MATAMOROS, J.		Agronomy			X					
MERINO, L. G.		Entomology			X	X		X		
NOBOA, A. M.		Plant Breeding	X	X	X	X				
ORELLANA, J.		Plant Breeding	X	X	X	X				
ORLANDO, C. A.		Agronomy			X		X		X	
TOLA, C. J.		Plant Breeding	X			X				
VEGA, J. G.		Plant Pathology						X		
VERA, G. A.		Plant Breeding	X		X			X		
VERA, V. I.		Entomology		X	X		X			
VILLACIS SANTOS, J. E.		Entomology		X	X		X			
	EGYPT									
AHMED, I. S.		Plant Breeding	X	X	X					
BALAL, M. S.		Plant Breeding		X						
BASSIOUNI, A. A.		Plant Pathology	X							
BHARDWAJ, B. D.		Plant Breeding			X				X	
DESSOUKI, S. M.		Plant Breeding	X		X	X				
EL-AZIZI, A. F. M.		Plant Breeding		X						X
HAFEZ, M.		Entomology			X					
MAXIMOS, M. A.		Plant Breeding		X						
SHUKRY, M. W. A.		Plant Breeding	X			X				
	EL SALVADOR									
MIRANDA, H.		Plant Breeding					X			

NAME COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein conten.
ETHIOPIA									
BEZUNEH, T.	Plant Physiology						X		
FADDA, N. R.	Plant Physiology					X		X	
GEBREKIDAN, B.	Plant Breeding			X	X			X	
GEBREMARIAM, H.	Plant Breeding	X							X
GELAW, B.	Agronomy	X		X				X	
GETAHUN, A.	Economic Botany						X		
KIDANE-MARIAM, H. M.	Plant Breeding						X		
MAKONNEN, D.	Plant Breeding	X		X	X			X	X
SCHMIDT, D. R.	Agronomy					X			
WOREDE, M.	Agronomy	X		X	X	X		X	
FIJI									
HAYNES, P. H.	Agronomy						X		
FRENCH WEST INDIES									
DEGRAS, L. M.	Plant Breeding			X		X	X		
KERMARREC, A. C.	Entomologist	X	X	X	X				
GAMBIA									
MARENAH, L. J.	Agronomy		X			X			
THOMAS, R. A.	Agronomy		X	X		X		X	X
GHANA									
ADDISON, E. A.	Plant Pathology								
AGBLE, F.	Plant Breeding					X			
AGBLE, W. K.	Plant Breeding		X	X					
AKPOSOE, M. K.	Plant Breeding			X					X
ARYEETEY, A. N.	Plant Breeding		X			X		X	

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein conten
	GHANA (Continued)									
DOKU, E. V.		Agronomy					X	X		
GBIRICHE, G. Z.		Agronomy		X			X	X	X	
GHARTEY. F. N.		Agronomy		X	X		X		X	
HAIZEL, K. A.		Crop Ecology			X		X	X		
KISSIEDU, A. F. K.		Agronomy			X			X		
KOLI, S. E.		Agronomy			X			X	X	
LAING, E.		Plant Breeding					X			
MERCER-QUARSHIE, H.		Plant Breeding					X		X	X
MUKHERJEE, I.		Plant Physiology		X	X					X
OFORI, C. S.		Plant Nutrition			X		X	X		
QUANSAH, J. E.		Plant Breeding		X						
	GUATEMALA									
CASTILLO, L. M.		Agronomy	X	X	X		X	X	X	
FUENTES O., S. A.		Plant Breeding			X					
FUMAGALLI C., A.		Plant Breeding	X	X	X		X			
MARTINEZ, E. S.		Plant Pathology	X				X			
MASAYA, P. N.		Plant Breeding					X			
PENAGOS G., M. L.		Agronomy	X		X					X
PEREZ R., C. N.		Plant Breeding			X					X
PRADILLA, A. F.		Plant Breeding			X		X			X
SCHIEBER, E.		Plant Pathology			X		X	X		
URRUTIA, V. M.		Soil Fertility			X				X	

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein conten.
	GUYANA									
CHESNEY, H. A.		Agronomy			X		X			
FLETCHER, R. E.		Agronomy			X		X			
MADRAMOOTOO, H.		Agronomy		X			X			
MULLER, G. J.		Plant Pathology			X		X			
STEPHENSON, A. P.		Agronomy					X			
	HAITI									
MONTOYA-MAQUIN, J. M.		Ecology								
	HONDURAS									
MONTENEGRO, J.		Plant Pathology		X	X		X	X		
REYES DISCUA, N.		Plant Breeding		X						
	INDIA									
AHMAD, S. T.		Plant Pathology	X		X	X				
AMIN, K. S.		Plant Pathology		X			X			
ANDIAPPA, S.		Plant Breeding		X			X		X	
ANKIREDDYPALLI, K. R.		Plant Pathology	X	X						
BANERJEE, S. N.		Entomology		X						
BANSAL, H. C.		Plant Breeding	X			X				X
BISWAS, S.		Plant Breeding		X						
BORTHAKUR, D. N.		Plant Breeding		X			X			
CHANDRA, S.		Plant Breeding					X			
CHAUHAN, K. P. S.		Plant Breeding	X							
CHIVUKULA, K.		Soil Science		X			X		X	
CHOHAN, J. S.		Plant Pathology					X			
CHOWDHURY, S. L.		Agronomy	X	X		X	X		X	

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein conten
INDIA (Continued)										
DAVIES, J. C.		Entomology					X		X	
DE, R.		Agronomy	X	X	X		X			
DESAI, M. D.		Agronomy	X	X					X	
DEVADATH, S.		Plant Pathology	X	X			X		X	
DUTT, B. L.		Plant Pathology						X		
DUTTA, T. R.		Plant Physiology	X	X			X	X		
GANGRADE, G. A.		Entomology					X			
GOSH, A. K.		Plant Breeding		X						X
GREWAL, J. S.		Plant Pathology	X				X			
HARDAS, M. W.		Plant Introduction	X							
JAIN, H. K.		Plant Breeding	X				X			
JESWANI, L. M.		Plant Breeding					X			
JOSHI, L. M.		Plant Pathology	X			X			X	
JOSHI, N. V.		Plant Breeding	X	X						
JOTWANI, M. G.		Entomology			X				X	
KHALSA, M. S.		Entomology	X	X			X			
KHARE, M. N.		Plant Pathology					X			
KISHORE, H.		Plant Breeding	X					X		
KOSHY, P. K.		Plant Pathology			X				X	
KOSHY, S.		Nutrititon	X		X		X			X
KRISHNAN, R.		Plant Breeding					X	X	X	
MAHAPATRA, I. C.		Agronomy	X	X	X		X			
MATHUR, B. P.		Agronomy	X	X			X		X	
MEHRA, K. L.		Plant Breeding	X	X	X	X	X	X	X	

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein conten
INDIA (Continued)										
MEHTA, S. L.		Nutrition	X	X	X		X			X
MEHTA, Y. R.		Plant Breeding	X	X	X		X	X	X	
MISRA, R. C.		Plant Breeding					X			
MISRO, B.		Plant Breeding		X					X	
MODGAL, S. C.		Agronomy	X	X	X		X			
MUKHERJEE, B. K.		Plant Breeding			X				X	X
MURTY, K. S.		Agronomy		X						
NAGAICH, B. B.		Plant Pathology						X		
NAIDU, K. M.		Plant Physiology	X							
NEELAMRAJU, G. P. R.		Plant Breeding					X		X	
NENE, Y. L.		Plant Physiology					X			
PADMANABHAN, S. Y.		Plant Pathology		X			X			
PANDEY, R. K.		Agronomy	X				X		X	
PATEL, P. N.		Plant Pathology					X			
PATEL, V. J.		Plant Breeding	X							
PATHAK, S.		Agric.Extension	X	X	X			X		
PATTANAYAK, C. M.		Plant Breeding	X		X				X	
PAYAK, M. M.		Plant Pathology	X		X					
PILLAI, K. G.		Agronomy	X	X				X	X	
PRAKASARAO, P. S.		Entomology		X						
PRASAD, R.		Agronomy	X	X	X				X	
RAMANUJAM, S.		Plant Breeding					X			
RAO, C. N.		Plant Physiology		X						
RAO, M. V.		Plant Breeding	X			X				

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein content
INDIA (Continued)										
RAO, Modekurty V.		Agronomy		X			X			
RAO, P. S.		Plant Pathology		X						
RAYCHAUDHURI, S. P.		Plant Pathology	X	X			X			
SAKSENA, H.K.		Plant Pathology	X	X			X			
SANDHU, G. S.		Entomology	X		X				X	
SARUP, P.		Entomology	X		X				X	
SAXENA, M. C.		Agronomy					X			
SESHU, D. V.		Plant Breeding		X						
SHAH, R. M.		Plant Breeding			X		X			
SHARMA, K. K.		Plant Breeding		X						X
SHARMA, S. D.		Plant Breeding		X						
SHASTRY, V. S. S.		Plant Breeding	X	X	X					
SIKKA, L. C.		Plant Breeding	X					X	X	
SINGH, A.		Plant Breeding					X			
SINGH, B. B.		Plant Breeding					X			X
SINGH, J.		Plant Breeding			X					
SINGH, K. N.		Agric Exrension	X	X			X			
SINGH, M. P.		Plant Breeding	X						X	
SINGH, M.		Agronomy	X	X	X		X	X		
SINGH, N. S. N.		Plant Breeding			X				X	
SINGH, T. P.		Plant Breeding					X			
SIRCAR, S. M.		Plant Physiology		X						
SISODIA, N. S.		Plant Breeding	X							
SREERAMULU, C.		Plant Breeding			X		X		X	X

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein conten
INDIA (Continued)										
TATWAWADI, G. R.		Plant Breeding	X	X			X		X	
THANGAM, M. S. N.		Plant Breeding							X	
TIWARI, R.		Plant Breeding						X		
UPADHYAYA, Y. M.		Plant Breeding	X			X				
VAYALAPPALLIL, J. T.		Plant Virology		X						
VENKATESWARLU, J.		Agronomy		X			X		X	
YADAVA, R. B.		Plant Physiology		X			X		X	
INDONESIA										
ANANG, H.		Agronomy		X				X		
HAKIM, R.		Plant Breeding			X					
IWATA, Y.		Plant Pathology		X	X		X			
JAVKSON, R. I.		Plant Breeding		X	X					
MOMUAT, E. O.				X						
PARTOHARDJONO, S.		Agronomy		X	X		X	X		
RUMAWAS, F.		Agronomy			X		X			
SOMAATMADJA, S.		Plant Breeding					X			
SUBANDI		Agronomy			X					
TANTERA, D. M.		Plant Pathology		X	X		X		X	
IRAN										
DANESH, D.		Plant Pathology					X			
GHADERI, A.		Plant Breeding	X				X			
KAVEH, H.		Agronomy	X			X				
KHAZRA, H.		Plant Pathology	X			X				
NIKNEJAD, M.		Plant Breeding	X			X	X			

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein conten.
	IRAN (Continued)									
SAMII, M.		Agronomy	X			X				
SARAFI, A.		Plant Breeding			X		X			
ZEHSAZIAN, H.		Plant Pathology	X				X			
	IRAQ									
AMEEN, O. A.		Agronomy	X			X				
	ISRAEL									
ASHRI, A.		Plant Breeding					X			X
GOLDIN, E.		Plant Breeding					X			
RETIG, B.		Agronomy	X				X			
SCHIFFMANN, J.		Agronomy	X				X			
	JAMAICA									
HAMMERTON, J. L.		Agronomy					X			
PAYNE, H. W.		Agronomy			X			X		
PIERRE, R. E.		Plant Pathology					X			
	KENYA									
ALLAN, A. Y.		Agronomy			X					
KAISER, W. J.		Plant Pathology					X			
KEYA, S. O.		Soil Science			X		X			
LAYCOCK, D.		Botany			X			X		
MACHARIA, C. N.		Plant Breeding			X	X				
MAKATIANI, J. B. S.		Agronomy			X		X	X		
McGINNIS, R. C.		Plant Breeding	X							
MUNDEL, H. H.		Plant Breeding	X							
NGUNDO, B. W.		Nematology		X			X			

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein content
	KENYA (Continued)									
NJERU, N.		Agronomy			X				X	
NJUGUNA, S. K.		Plant Breeding			X		X	X		
ODHIAMBO, T. R.		Entomologist	X	X	X	X	X			
OGADA, F.		Plant Breeding			X					
OGGEMA, M. W.		Plant Breeding	X			X				
OMOLO, E. O.		Plant Breeding			X					X
ONDIEKI, J. J.		Plant Pathology		X	X					
SELLEY, G. N.		Plant Breeding			X	X	X			
van EIJNATTEN, C. L. M.		Plant Breeding			X					
WABWOTO, B. A. N.		Plant Breeding	X			X				
	KHMER REPUBLIC									
HUOR, H. C.		Seed Production								
	KOREA									
BAE, S. H.		Plant Breeding		X						
CHANG, K. Y.		Plant Breeding		X			X			
CHO, D. H.		Food Science		X						
CHOI, H. O.		Plant Breeding	X	X	X	X	X	X		
CHOE, S. Y.		Entomology	X	X		X				
CHUNG, H. S.		Plant Pathology	X	X		X	X			
HEU, M. H.		Plant Breeding	X	X			X			
HYUN, J. S.		Entomology		X						
KIM, K. U.		Agronomy		X		X	X	X		
KWON, S. H.		Plant Breeding		X		X	X			
KYU-YONG, C.		Agronomy	X	X		X	X			

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein Content
	KOREA (Continued)									
LEE, E. W.		Agronomy	X	X		X	X			
LEE, H. S.		Plant Breeding	X							
LEE, K. H.		Plant Pathology	X	X		X	X			
LEE, S. C.		Entomology	X	X		X	X	X		
PARK, K. Y.		Plant Breeding			X		X	X		
SHIM, S. C.		Bio-chemistry		X						
	LEBANON									
KLAIMI, Y. Y.		Plant Breeding	X			X				
NASR, H. G.		Agronomy	X		X	X	X			
SAAD, A. T.		Plant Pathology	X				X	X		
	LIBERIA									
BEDELL, J. K.		Animal Science		X						
CARPENTER, A. J.		Plant Breeding		X						
FROMAYAN, A. M.		Extension		X	X					
	MALAWI									
AYONOADU, U. W.		Plant Breeding			X	X	X			
BAKER, A. A.		Entomology	X		X		X		X	
EDJE, O. T.		Plant Physiology			X		X	X		
FRANCIS, P.		Agronomy	X	X	X		X			
GIBBONS, R. W.		Plant Breeding					X			
MALITHANO, A. D.		Plant Breeding			X					X
MERCER, P. C.		Plant Pathology						X		
MUGHOGHO, L. K.		Plant Pathology					X			
TSONGA, E. W.		Agronomy	X		X	X		X		

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein Content
	MALAYSIA									
BOON, H. C.		Plant Breeding		X						
CHIN, K. M.		Plant Pathology		X						
GUAN-SOON, L.		Entomologist		X			X			
HO, B. L.		Plant Pathology		X			X			
SHEN, T. C.		Plant Physiology		X			X			
STANTON, W. R.		Botany					X			
VAN, T. K.		Plant Breeding		X	X				X	
WIJEWARDENE, P. R.		Ag. Engineering		X						
YUNUS, A.		Entomology		X						
	MEXICO									
AMAYA, A. A.		Agronomy	X			X				
BARRIGA, C. S.		Plant Breeding					X			
CRISPIN MEDINA, A.		Agronomy					X			X
DELGADO, S. S.		Agronomy						X		
FIGUEROA, R. T.		Plant Breeding	X		X	X	X			X
GARCIA, H. L.		Agronomy					X			
IRUEGAS-EVARISTO, A.		Plant Breeding	X	X	X	X				X
JIMENEZ-SANCHEZ, L.		Agronomy		X	X		X		X	
MALDONADO, A. U.		Plant Breeding	X		X	X	X			
MARQUEZ-SANCHEZ, F.		Plant Breeding	X		X				X	
NAVARRO-FRANCO, M.		Agronomy	X	X		X				
ORTEGA, M. L.		Plant Physiology			X		X	X		X
POEY, F. R.		Plant Breeding			X					X
ROBLES, L. H.		Agronomy	X		X		X			
SOSA-CHAVEZ, R		Plant Breeding	X					X		

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein Content
	MEXICO (Continued)									
VALENZUELA, C.		Plant Breeding	X	X						X
VELA-CARDENAS, M.		Agronomy	X		X	X				
VIVAR, H. E.		Agronomy	X			X				
	NEPAL									
BHATTARAI, A. N.		Agronomy	X	X						
RAJBHANDARY, G. R.		Plant Breeding			X				X	X
RANA, P. S. J. B.		Agronomy	X	X	X	X				
	NEW CALEDONIA									
LAMBERT, M.		Agronomy						X		
	NEW GUINEA									
ENYI, B. A. C.		Plant Physiology		X	X		X	X	X	
ERSKINE, W.		Plant Breeding					X			X
KHAN, T. N.		Plant Breeding				X	X		X	
	NICARAGUA									
ARGUELLO, R. A.		Plant Breeding			X				X	
BARQUERO, H. T.		Plant Breeding			X					
BIRD, W.		Agronomy		X						
BLACUT, A. S.		Plant Breeding			X				X	
BRAVO, J. M.		Agronomy		X						
ESPINOZA, S.		Weed Control	X	X	X	X				
GARCIA, J.		Agronomy	X		X	X	X			
LEYPON-NOGUERA, E.		Agronomy		X	X		X		X	
LLANO, A.		Plant Physiology			X		X		X	
MORA, V. M.		Agronomy		X						
OSORIO GARCIA, L. A.		Agric.Extension		X	X				X	

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein Content
	NICARAGUA (Continued)									
PONCE, J. A.		Plant Breeding					X			
RODRIGUEZ, J. S.		Entomology			X		X		X	
SALAZAR B., A.		Plant Breeding			X				X	
SEQUERIRA, J.		Entomology		X						
SEQUEIRA, B. F.		Nematology			X					
TAPIA BARQUERO, F. H.		Plant Breeding			X					
TREMINIO, C. R.		Soil Fertility		X						
	NIGERIA									
ADUAYI, E. A.		Soil Chemistry	X		X	X		X		
AGBO, F. M. O.		Plant Breeding					X			X
AKINGBOHUNGBE, A. E.		Entomology					X			
BAKER, E. F. I.		Agronomy			X			X		
BARRY, B. D.		Entomology			X				X	
DINA, S. O.		Entomology					X			
EBONG, U. U.		Plant Breeding			X		X			
EGUNJOBI, O. A.		Nematology			X		X			
EKANDEM, M. J.		Agronomy			X		X	X		
EKPENYONG, T. E.		Plant Breeding			X		X			X
EL ROUBY, M. M.		Plant Breeding	X		X				X	
EZEDINMA, F. O. C.		Agronomy					X	X		
FASHAKIN, J. B.		Nutrition Chem.					X	X		
FAYEMI, A. A.		Agronomy		X	X			X	X	
HARKNESS, C.		Plant Breeding					X			
JERATH, M. L.		Entomology								
KAY, T.		Biochemistry					X			X

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein Content
	NIGERIA (Continued)									
KHADR, F. H.		Plant Breeding	X		X				X	
LADEINDE, T. A.		Plant Breeding					X			
LELEJI, O. I.		Plant Breeding					X			
McDONALD, D.		Plant Pathology					X			
OBIHARA, C. H.		Agronomy		X	X			X		
OJOMO, O. A.		Agronomy					X			X
OLGUNDE, O. O.		Agronomy			X				X	
ONOCHIE, B. E.		Agronomy		X			X	X		
OYEKAN, P. O.		Plant Pathology			X		X			
PATEL, A. I.		Agric Extension			X			X		
RAHEJA, A. K.		Entomology					X			
SALAKO, E. A.		Agronomy		X						
SHOYINKA, S. A.		Virology			X		X	X		
STOCKINGER, K. R.		Agronomy			X				X	
TAYLOR, T. A.		Entomology					X			
YAKOCK, J. Y.		Soil Fertility					X			
ZUMMO, N.		Plant Pathology			X					
	PAKISTAN									
AHMAD, I.		Plant Breeding					X	X		
AHMAD, S.		Entomology					X			
ALI, C. R.		Plant Pathology						X		
ARAIN, A. S.		Agronomy			X					
BHATTI, A. G.		Agronomy			X		X			
CHAUDHARY, G. Q.		Entomology	X	X	X		X		X	
CHAUDHRI, N. M.		Plant Breeding	X	X	X	X	X			

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein Content
	PAKISTAN (Continued)									
CHAUDHRY, A. M.		Plant Breeding	X	X						
CHAUDHRY, A. R.		Plant Breeding			X				X	
CHAUDHRY, A. S.		Plant Breeding	X			X	X		X	
CHAUDHRY, A. H.		Plant Breeding					X			
CHAUDHRY, M. U.		Food Technology								X
CHAUDHRY, M. N.		Plant Breeding	X		X					
CHAUDHRY, M. A.		Plant Pathology	X				X			
HUSAIN, M.		Agronomy	X						X	
KHAN, A. R.		Plant Breeding			X				X	
KHAN, F. A.		Plant Breeding	X							
MALIK, M. Z.		Agric. Biochemistry	X		X			X		X
MIRZA, M. S. A.		Plant Breeding	X			X		X	X	
QURESHI, S. A.		Plant Breeding	X		X		X		X	
RANA, M. S. K.		Plant Breeding	X			X			X	
SHAFI, C. M.		Plant Breeding		X						
SOOMROO, A. H.		Entomology	X	X	X				X	
TUFAIL, M.		Agronomy	X		X				X	
	PANAMA									
ALEMAN-RAMIREZ, R. E.		Agronomy					X			
ALVARADO, A. D.		Plant Breeding			X				X	
ESPINOSA, E.		Agronomy		X	X				X	
NAVAS, D. E.		Entomology		X	X		X			
SILVERA, G. A.		Plant Breeding					X			
VON CHONG, C.		Agronomy		X	X		X			

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein Content
	PARAGUAY									
ALVAREZ, L. A.		Plant Breeding	X				X			
	PERU									
ALATA, J. V.		Agronomy			X		X	X		
ARTURO, V. S.		Plant Breeding	X		X					
BACIGALUPO, A. F.		Agronomy						X		X
BENITEZ, J. R.		Agronomy			X					
BOCANEGRA SALAZAR, S.		Agronomy			X		X			
CASTILLIO, L. E.		Plant Breeding		X						
CERRATE, A. M.		Agronomy			X					
CHANG-NAVARRO, L.		Agronomy			X		X	X		
CHRISTIANSEN, J. A.		Plant Breeding						X		
CONTRERAS, P.		Agronomy		X			X			
CUMPA, D. S.		Agronomy	X	X			X			
DEL CARPIO BURGA, R. O.		Plant Breeding						X		
DELGADO PERALTA, M. J.		Entomology						X		
DONGO, S. L.		Agronomy			X		X	X		
DREIFUSS, W.		Biochemical Engineering						X	X	X
FERNANDEZ-NORTHCOTE, E. N.		Agronomy					X	X		
FRANCKOWIAK, J. D.		Plant Breeding	X				X	X		
FRIBOORG, C. E.		Plant Pathology						X		
GONZALEZ, H. R.		Plant Breeding		X						X
GROBMAN, A.		Plant Breeding			X				X	
HERNANDEZ, J.		Agronomy		X						
HERRERA, C. V.		Agronomy			X				X	
JUAREZ, L. A.		Agronomy	X	X						

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein Content
	PERU (Continued)									
LLOSA, C.		Plant Breeding	X			X				
MANRIQUE, A.		Agronomy			X		X			
NURENA SANGUINETTI, M. A.		Agronomy		X	X			X	X	
ONETO, A. G.		Agronomy		X						
de la PUENTE, F. F.		Agronomy						X		
SALHUANA, W. S.		Agronomy			X				X	
SANCHEZ, H. E.		Plant Breeding			X				X	
SANCHEZ, R.		Plant Breeding					X		X	
SCHEOCH, F.		Plant Breeding			X					
SEMINARIO, C. A.		Agronomy			X		X			
SEVILLA, R.		Plant Breeding			X					
VALDEZ, L. A.		Agronomy			X					
VARGAS, R. S.		Agronomy			X		X	X		
VASQUEZ-SALAZAR, A.		Agronomy	X		X					X
VOYSEST-VOYSEST, O.		Agronomy					X			
	PHILIPPINES									
ADAY, B. A.		Plant Breeding			X					X
ADVINCULA, B. A.		Plant Pathology		X	X		X		X	
BALAOING, V. G.		Plant Pathology					X	X		
BALLON, F. B.		Plant Breeding					X			X
BERGONIA, H. T.		Plant Pathology		X	X					
BERNARDO, F. A.		Plant Breeding			X				X	
CADA, E. C.		Agronomy		X	X		X			
CAGAMPANG, I. C.		Agronomy		X	X				X	
CARANGAL, V. R.		Agronomy		X	X		X		X	

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein conten.
PHILIPPINES (Continued)										
CASTILLO, M. B.		Plant Pathology					X			
CONTADO, T. E.		Extension		X						
DAVIDE, R. G.		Nematology						X		
DIVINAGRACIA, G. G.		Plant Pathology								
DRILON, J. D., Jr.		Agribusiness		X	X					
EMPIG, L. T.		Plant Breeding			X		X			
ESCURO, P. B.		Plant Breeding	X	X						
EUGENIO, T. S.		Agronomy		X	X					
EXCONDE, O. R.		Plant Pathology		X	X				X	
GOMEZ, A. A.		Plant Breeding			X		X		X	
GONZALES, T. T.		Agronomy		X	X				X	
ILAG, L. L.		Plant Pathology		X	X		X		X	
LANTICAN, R. M.		Plant Breeding					X			
LAPIS, D. B.		Plant Pathology	X	X	X					
NECESITO, A. C.		Plant Physiology	X	X	X		X			
MADAMBA, C. P.		Plant Pathology		X			X			
MAMICPIC, N. G.		Agronomy					X	X		
MERCADO, B. L.		Plant Physiology		X	X					
OBORDO, R. A.		Agronomy		X	X		X	X		
ONATE, L. U.		Human Nutrition							X	
QUEBRAL, F. C.		Plant Pathology					X			
QUINTANA, E. U.		Agronomy		X	X		X		X	
SABALVORO, E. S.		Plant Breeding		X	X					

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein conten.	
PHILIPPINES (Continued)											
SAMONTE, H. P.		Agronomy			X			X	X		
SANCHEZ, F. F.		Entomology		X			X	X			
TAURO, A. C.		Agronomy		X	X		X				
RHODESIA											
NELSON, S. W.		Plant Breeding			X			X	X		
TATTERSFIELD, J. R.		Plant Breeding					X				
SAUDI ARABIA											
HALL, W. E.		Agronomy	X			X					
HENDERSON, K. E.		Agronomy	X						X		
JOWANA, M. Z.		Plant	X			X					
SENEGAL											
STECKLE, J. M.		Food Utilization	X				X	X	X		
SIERRA LEONE											
GODFREY-SAM-AGGREY, W.		Agronomy					X	X			
JONES, R. A.		Plant Physiology	X	X			X	X		X	
TAYLOR, W. E.		Agronomy		X			X				
SINGAPORE											
CHOW, K. H.		Plant Breeding	X	X						X	
SOLOMAN ISLANDS (British)											
GOLLIFER, D. E.		Agronomy						X			
GORREZ, F. D., Jr.		Agronomy		X	X		X		X		
SOMALIA											
ALIO, A. N.		Agronomy	X	X	X				X		

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein content
	SRI LANKA									
ABEYGUNAWARDENA, D.V.W.		Plant Pathology		X				X		
FERNANDO, H. E.		Entomology		X						
GUNASENA, H.		Agronomy		X	X		X		X	
GUNAWARDENA, I. E.		Plant Physiology		X						
WEERARATNE, H.		Agronomy		X						
	SUDAN									
CARR, S. J.		Agronomy					X	X	X	
DAFALLA, D. A.		Agronomy	X			X				
MAHMOUD, M. A.		Plant Breeding							X	
	SURINAM									
del PRADO, F. A.		Plant Pathology		X						
	SWAZILAND									
BROOK, C. E.		General Agriculture			X					
CUTTER, E. C.		Plant Pathology					X			
	TAIWAN									
CHANG, S. C.		Plant Breeding			X					
CHANG, W. L.		Agronomy		X						
CHEN, C. C.		Plant Breeding		X						
CHENG, C. P.		Plant Breeding			X		X	X	X	
CHENG, C. H.		Entomology		X			X			
HSIEH, S.		Plant Pathology		X						
HU, C. H.		Plant Breeding		X						
ISHIZUKA, Y.		Plant Nutrition	X	X				X		
LIN, C. I.		Plant Breeding		X			X	X		

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tuber.	Sorghum/Mille	Protein conten
	TAIWAN (Continued)									
SUN, M. H.		Plant Pathology			X		X		X	
WANG, C. I.		Plant Breedin	X	X						
WOO, S. C.		Plant Breedin	X	X						
WU, H. B. F.		Plant Physiolog			X		X			
	TANZANIA									
BHARGAVA, S. C.		Agronomy		X	X		X			
ERIKSMOEN, D. A.		Agronomy	X	X	X	X				
JUDY, W. H.		Agronomy			X		X		X	
MONYO, J. H.		Plant Breedin	X	X	X		X		X	X
MPHURU, A. N.		Entomology		X	X		X		X	
RAI, T. B.		Agronomy					X			X
UTKHEDE, R. S.		Plant Breedin	X		X		X		X	
	THAILAND									
AWAKUL, S.		Plant Breedin		X			X			
BOONSUE, B.		Plant Breedin		X			X		X	
BOON-LONG, S.		Plant Physiolog		X						
BURANAPAWANG, S.		Entomology		X						
CHAKRABANDHU, M. C.		Agronomy		X	X					
CHANDHANAMUTTA, P.		Plant Breedin	X	X						
CHANDRAPANYA, D.		Agronomy		X			X			
DASANANDA, S.		Plant Breedin		X						
GIATGONG, P.		Pant Pathology		X						
HUOR, H. C.		Seed Production	X	X	X	X	X			
JINAHYON, S.		Plant Breedin			X					

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein content
	THAILAND (Continued)									
KANJANASOON, P.		Plant Pathology		X						
LUSANANDANA,		Plant Physiology		X						
MANEEPHONG, C.		Agronomy		X	X		X			X
NA LAMPANG, A.		Plant Breeding					X			
PUSHPAVESA, S.		Plant Breeding		X						
SAMPHANTHARAK, K.		Agronomy			X		X		X	
SMUTKUPT, S.		Plant Breeding					X			
SRIWATANAPONGSE, S.		Plant Breeding			X		X			X
SYAMANANDA, R.		Plant Pathology		X	X		X	X		
TONGDEE, A.		Agronomy					X			
UMALI, D. L.		Plant Breeding		X	X					
WATHANAKUL, L.		Plant Pathology		X						
WEERAPAT, P.		Plant Breeding		X						
	TRINIDAD									
BLAIR, G. P.		Plant Pathology		X						
HAQUE, S. Q.		Plant Virology					X	X		
LAURENCE, G. A.		Entomology					X	X		
SINGH, N. D.		Nematology			X					
	TUNISIA									
GAIEB, M. H.		Agric.Extension								
GHODBANE, A.		Plant Pathology	X							
MAAMOURI, A. R.		Plant Breeding	X			X				

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein content
	TURKEY									
AYBAK, H. C.		Agronomy					X			
CANITEZ, N.		Agronomy					X			
DEMIRLICAKMAK, A.		Plant Breeding	X			X				
DEMIROZ, S. S.		Agronomy	X		X			X		
DINCER, N.		Plant Breeding	X							
TEMIZ, K.		Plant Pathology	X			X		X		
TOSUN, O.		Agronomy	X			X	X			
	UGANDA									
KWAJE, S. L.		Plant Pathology			X				X	
MUKIIBI, J. K.		Plant Pathology					X	X		
RUBAIHAYO, E. B.		Plant Breeding			X					X
RUBAIHAYO, P. R.		Plant Breeding					X			X
	VENEZUELA									
ARIAS, C. M.		Agronomy			X				X	
BARRIOS, A.		Agronomy					X			
DIAZ-POLANCO, C. A.		Plant Pathology					X			
JAFFE, W. G.		Bio-Chemistry			X		X			X
MARCANO, L. E.		Plant Breeding					X			
MAZZANI, B.		Plant Breeding					X			
MONTALDO, A.		Agronomy						X		
ORTEGA, S.		Plant Breeding					X			

NAME	COUNTRY	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein conten
VIETNAM, SOUTH										
DO, C. V.		Agronomy		X			X			
DUONG, L. T.		Agronomy								
HOA, T. V.		Plant Physiology			X		X		X	
HUYNH, N. V.		Entomology		X	X					
HUYNH, Q. V.		Plant Breeding		X						
MUNG, N. V.		Plant Breeding			X		X			
NGHIEM, N. T.		Plant Pathology		X						
QUYEN, N. H.		Agronomy					X			
TOAN, T. H.		Plant Pathology		X	X				X	
TRINH, T. T.		Agronomy		X			X			
WEST INDIES										
WALTER, C. J.		Agronomy			X		X	X		
GOODING, E. G. B.		Agronomy						X		
YEMEN										
EI-ERYANI, A. K. A.		Plant Breeding	X		X	X			X	
ZAMBIA										
BRADWELL, C. J.		Plant Breeding			X				X	X
TAHA, M. A.		Agronomy	X				X			

INDUSTRIAL COUNTRY Scientists with special interest in food crops for developing countries.

COUNTRY NAME OF SCIENTIST	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein conten
U.S.A. ABRAMS, R.	Plant Breeding					X			
U.S.A. ACOSTA-CARREON, A.	Plant Breeding	X							
U.S.A. ADAMS, M.	Plant Breeding					X			
France AURIAU	Plant Breeding	X							
U.S.A. AXTEL	Plant Breeding			X				X	
U.S.A. AYALA, A.	Entomology					X	X		
U.S.A. BATES, L. S.	Biochemistry	X		X	X	X	X		X
Australia BHATT, G. M.	Plant Breeding	X				X		X	
U.S.A. BIRD, J.	Plant Pathology					X			
U.K. BOLTON, A.	Plant Breeding			X				X	
U.S.A. BONNEFIL, L.	Entomology			X		X			
U.K. BOULTER, D.	Biochemistry		X		X	X			X
U.S.A. BUHR, K. L.	Plant Breeding					X			
U.K. BUNTING, A. H.	Plant Physiology					X		X	
Germany CAESAR, K.	Agronomy						X		
U.S.A. CALTAGIRONE, L. E.	Entomology					X			
U.S.A. CARTER, L. P.	Agronomy	X			X				
U.S.A. CAVINESS, C. E.	Plant Breeding	X	X			X			
U.S.A. CRAIG, J.	Plant Pathology			X				X	
U.K. DART, P. J.	Plant Physiology					X			
Belgium DEMOL, J. G. D.	Agronomy			X		X			
U.S.A. DENNIS, R. E.	Agronomy	X		X	X			X	
Italy DUARTE, R. A.	Plant Breeding					X			

INDUSTRIAL COUNTRY Scientists - 142 -
(Continued)

COUNTRY	NAME OF SCIENTIST	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein content
U.S.A.	ENGLESTAD, O. P.	Soil Fertility	X	X	X					
U.K.	EVANS, A. M.	Plant Breeding					X			
Australia	EVANS, L. T.	Plant Physiology	X	X	X		X			
U.S.A.	FREYTAG, G. F.	Plant Breeding					X			
U.S.A.	GOETZE, N.	Agronomy	X			X				
U.K.	GRAY, D. H.	Seed Production					X			
U.S.A.	GULL, D. C.	Plant Physiology								X
U.K.	HALL, D. W.	Entomology					X			
U.K.	HAMBLIN, J.	Agronomy				X	X			X
Sweden	HAMMAR, O.	Agronomy	X		X		X			
U.S.A.	HARRAR, J. G.	Plant Pathology								
U.S.A.	HARTWIG, E. E.	Agronomy					X			X
Belgium	HENDRICKX, F.	Agronomy					X	X		
Netherlands	HERMSEN, J. G. T.	Plant Breeding	X					X		
Netherlands	HESEN, J. C.	Agronomy						X		
U.K.	HODSON, M. J.	Entomology			X			X		
U.K.	HUXLEY, P. A.	Plant Physiology					X			
U.S.A.	HYMOWITZ, T.	Plant Breeding					X			X
U.K.	INGRAM, W. R.	Entomology			X			X	X	
U.K.	JENNINGS, D. L.	Plant Breeding					X	X	X	
Japan	KANEDA, C.	Plant Breeding		X			X			
U.S.A.	KEARL, B. E.	Communication		X						
U.S.A.	KERSHEN, R. J.	Plant Breeding	X							
U.S.A.	KING, S. B.	Plant Pathology			X				X	
U.S.A.	KOGAN, M.	Entomology					X			

INDUSTRIAL COUNTRY Scientists
(Continued)

COUNTRY NAME OF SCIENTIST	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein content
Hungary KOVACS, I.	Plant Breeding			X					X
U.S.A. KRONSTAD, W. E.	Plant Breeding	X			X				
Belgium LeMARCHAND, G.	Plant Breeding					X			X
U.S.A. LENG, E. R.	Plant Breeding			X		X			
U.S.A. LORZ, A. P.	Plant Breeding					X			
U.S.A. LUCKMANN, W. H.	Entomology			X		X			
Belgium MARECHAL, R.	Plant Breeding					X			
France MARIE, R. A.	Plant Breeding		X						
U.S.A. MARTIN, F. W.	Plant Breeding						X		
U.S.A. MEINERS, J. P.	Plant Pathology	X		X	X	X		X	
U.S.A. MURPHY, W. J.	Agronomy	X	X	X	X	X		X	
U.S.A. OSWALT, D. L.	Agronomy							X	X
Belgium OTOUL, E.	Agronomy					X	X		
U.S.A. de la PENA, R. S.	Agronomy		X	X			X	X	
U.K. PITMAN, J. H. N.	Agronomy					X		X	
U.S.A. POEHLMAN, J. M.	Plant Breeding	X	X		X				
Germany POLLMER, W. G.	Plant Breeding			X					X
U.K. RADLEY, R. W.	Agronomy					X	X		
U.S.A. REITZ, L. P.	Plant Breeding	X		X	X			X	
Germany ROSS, H.	Plant Breeding						X		
U.S.A. SCHWENK, R. L.	Extension		X	X		X	X		
U.S.A. SCOTT, W. O.	Agronomy	X		X	X	X			
U.S.A. SECHLER, D. T.	Plant Breeding	X			X	X		X	
U.S.A. SEHGAL, S. M.	Plant Breeding	X		X		X		X	
U.S.S.R. SHMARAEV, G. E.	Agronomy	X		X	X		X		

INDUSTRIAL COUNTRY Scientists
(Continued)

COUNTRY	NAME OF SCIENTIST	PROFESSION	Wheat	Rice	Maize	Barley	Food Legumes	Roots & Tubers	Sorghum/Millet	Protein content
U.S.A.	SOTOMAYOR-RIOS, A.	Agronomy						X	X	
U.K.	STEELE, W. M.	Agronomy					X		X	
U.S.A.	SWEARINGIN, M. L.	Agronomy			X		X			
Japan	TANKA, A.	Plant Physiology		X	X		X			
U.S.A.	VAKILI, N. G.	Plant Pathology	X				X			
U.S.A.	WALLACE, D. H.	Plant Breeding					X			
U.S.A.	WEBSTER, O. J.	Plant Breeding			X				X	
U.S.A.	WAIGHAM, D. K.	Agronomy			X		X		X	
U.S.A.	WILKENING, W. T.	Extension	X	X	X	X	X	X	X	
Canada	YOUNG, D. A.	Plant Breeding						X		

APPENDIX A.

INSTITUTIONS DIRECTORY

Administrators and specialists who work on food crops and human nutrition problems, on the staffs of international and regional agricultural research institutions, are given in this section.

Many of these institutions specialize in certain crops, or types of activities. For example, IRRI concentrates on rice, CIMMYT deals with maize and wheat, IITA emphasizes cowpeas, yams and sweet potatoes, and CIAT focuses on beans and cassava. Rockefeller Foundation provides many of the administrative staff for these international institutions, and provides, along with A.I.D., the Ford Foundation, and other donor agencies (U.S. and foreign), budgetary support. Two of the most recent international research centers are ICRISAT and CIP. ICRISAT, located at Hyderabad, India, specializes in sorghum, millets, pigeon peas, chickpeas, and more recently groundnuts or peanuts. CIP, located at Lima, Peru, specializes in potato research.

In Latin America, as a regional effort, IICA conducts the Inter-American Tropical Pulse Program.

In addition to general crops research support, EAAFRO in East Africa has a special interest in armyworm control.

The Tropical Products Institute has a special section on Tropical Stored Products.

Most of the research institutions also have training programs.

Names are listed as submitted by institution (with or without academic degree shown). Unfortunately some are also given without a specialty indicated. The institutions included in this section are as follows:

	Institution	Page
1.	Action/Peace Corps 806 Connecticut Ave., N. W. Washington, D. C. 20525	148
2.	Agricultural Development Council (ADC) 630 Fifth Avenue New York, New York 10020	149
3.	Agency for International Development (AID) Washington, D. C., U.S.A. 20523	150

4.	Arid Lands Agricultural Development Program (ALAD) (See 13 below)	162
5.	Asian Vegetable Research and Development Center (AVRDC) Shanhua, Taiwan	151
6.	Tropical Center of Agricultural Research and Teaching (CATIE) Centro Agronomico Tropical de Investigacion y Ensenanza Turrialba, Costa Rica	152
7.	International Center for Tropical Agriculture (CIAT) Centro Internacional de Agricultura Tropical Cali, Colombia	153
8.	International Maize and Wheat Improvement Center (CIMMYT) Centro Internacional de Mejoramiento de Maize y Trigo Mexico City, Mexico	155
9.	International Potato Center (CIP) Centro Internacional de la Papa Lima, Peru	158
10.	Center for Overseas Pest Research (COPR) London, England	159
11.	East African Agriculture and Forestry Research Organization (EAAFRO) Nairobi, Kenya	160
12.	East-West Center (East-West Food Institute) Honolulu, Hawaii	161
13.	Ford Foundation (including ALAD) New York Headquarters and Regional Staff	162
14.	International Crops Research Institute for Semiarid Tropics (ICRISAT) Hyderabad, India	163
15.	International Development Research Center (IDRC) Centre de Recherches pour le Developpement International Ottawa, Canada	165
16.	Inter-American Institute for Agricultural Sciences (IICA) Instituto Interamericano de Ciencas Agricolas de la OEA San Jose, Costa Rica	166
17.	International Institute of Tropical Agriculture (IITA) Ibadan, Nigeria	167

18. Nutrition Institute of Central America and Panama (INCAP) 168
Instituto de Nutricion de Centro America Y Panama
Guatemala City, Guatemala

19. National Institute of Agricultural Research (INRA) 169
Institut National de la Recherche Agronomique
Paris, France

20. Institute for Agronomic Research in the Tropics (IRAT) 170
Institut de Recherches Agronomiques Tropicales et des Cultures Vivriers
Paris, France

21. Research Institute for Oil Crops (IRHO) 173
Institut de Recherche pour les Huiles et Oleagineux
Paris, France

22. International Rice Research Institute (IRRI) 174
Los Banos, Philippines

23. Near East Foundation (NEF) 176
New York Headquarters

24. Ministry of Overseas Development (ODM) 177
London, England

25. Rockefeller Foundation Field Staff (16 different countries) 178

26. Royal Tropical Institute (RTI) 179
Koninklijk Instituut voor de Tropen
Amsterdam, Holland

27. Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) 180
Manila, Philippines

28. Tropical Agricultural Research Center (TARC) 181
Tokyo, Japan

29. Tropical Product Institute (TPI) 182
London, England

30. University of the West Indies (UWI) 183
Department of Crop Science
St. Augustine, Trinidad

31. West African Rice Development Association (WARDA and ADRAO) 184
Association Pour le Developpement de la Riziculture en Afrique de L'Ouest
Monrovia, Liberia

ACTION
WASHINGTON, D.C. 20525

PEACE CORPS

The Peace Corps has many specialists working on projects involving food crops. For information on location and availability of Peace Corps personnel that might have expertise on food crops, the following addresses are suggested:

Latin America and Caribbean region:

Regional Director for Latin America
Peace Corps
806 Connecticut Avenue
Washington, D. C. 20525

North Africa, Near East, Asia and Pacific Region

Regional Director for NANEAP
Peace Corps
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Sub-Sahara Africa Region:

Regional Director for Africa
Peace Corps
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Washington, D. C. 20525

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Established by John D. Rockefeller 3rd

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The Agricultural Development Council supports teaching and research related to the economic and human problems of agricultural development, primarily in Asia. It works through a staff of social scientists, primarily agricultural economists, resident in various countries in Asia. In addition to its network of seminars, workshops and research activities involving Asian social scientists, the Council supports Asian students in graduate study programs, at the MSc level in Asia and at the PhD level in the United States.

RUTTAN, Dr. Vernon W.	President

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

The Agency for International Development (A.I.D.) presently maintains offices in about 45 developing countries. These Missions may be helpful in locating food crop specialists. Correspondence to USAID Missions should be addressed to:

Agricultural Officer
Agency for International Development
c/o American Embassy
(Capital city)

Food crop specialists and consultants who are listed in Technical Series Bulletin No. 8, Increasing Food Production with Emphasis on High Protein Crops may be available from the Bureau for Technical Assistance through the USAID Mission or the Regional Bureaus listed below. Copies of this Bulletin can be found at USAID Missions, but may not be available for distribution. For information from Washington, D. C. on food crop specialists, the following addresses are suggested for the areas shown:

Central and South America and the Caribbean area:

Rural Development Division
Office of Development Resources
Bureau for Latin America
Agency for International Development
Washington, D. C. 20523

Africa (Sub-Sahara):

Office of Regional Affairs
Bureau for Africa
Agency for International Development
Washington, D. C. 20523

Afghanistan, Cyprus, Egypt, Jordan, Morocco, Portugal, Syria, Tunisia, Turkey, and Yemen:

Office of Technical Support/RHPD
Bureau for Near East
Agency for International Development
Washington, D. C. 20523

Bangladesh, Korea, India, Indonesia, Nepal. Pakistan, Philippines, Sri Lanka, and Thailand:

Rural Development Division
Office for Technical Development
Bureau for Asia
Agency for International Development
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LUH, Mr. C. L.	Associate Director
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OPENA, Dr. Romeo T.	Associate Plant Breeder
PARK, Dr. Hyo-Guen	Associate Plant Breeder
SHANMUGASUNDARAM, Mr. S.	Research Associate in Soybean Breeding
CHENG, Mr. Nung-Che	Assistant Plant Breeder
HO, Mr. Leonard	Seed Technologist, Germ Plasm Collection
YANG, Dr. Charles Y.	Head, Department of Plant Pathology
MEW, Dr. Annabelle	Research Associate in Plant Pathology
MEW, Dr. Twng Wa	Research Associate in Plant Pathology
SUN, Dr. Mike K. C.	Research Associate in Plant Pathology
TSOU, Dr. Samson C.	Head, Department of Agricultural Chemistry
TALEKAR, Dr. N. S.	Research Associate in Pesticide Residues
ROSE, Dr. Robert I.	Head, Department of Entomology
KUO, Dr. C. George	Head, Plant Physiology Department
YOSHIDA, Dr. Takashi	Head, Department of Soil Science
WILLIAM, Dr. Raymond D.	Head, Office of Training and Crop Management
CASTRO, Mr. Diosdado	Production Training Specialist

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ELGUETA, Manuel	Director, CATIE
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CAMACHO, Edilberto	Horticulturist
FARGAS, Jose	Plant Physiologist
HUTCHINS, Lee M.	Phytopathologist
LAWRENCE, Jeremy	Phytopathologist
MATEO, Nicolas	Production Systems
MOH, Carl C.	Cytogeneticist
MORENO, Raul	Plant Pathologist
PINCHINAT, Antonio	Geneticist
WHITE, Rodney C.	Plant Physiologist

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CALI COLOMBIA

CENTRO INTERNACIONAL DE AGRICULTURA TROPICAL

NICKEL, Dr. John L.	Director General
ALVAREZ-LUNA, Dr. Eduardo	Deputy Director General
RACHIE, Dr. Kenneth O.	Director for Research

Cassava Production Systems

COCK, Dr. James H.	Plant Physiologist, Coordinator
DOLL, Dr. Jerry	Weed Control Specialist
HOWELER, Dr. Reinhardt	Soil Scientist (also Field Beans)
KAWANO, Dr. Kazuo	Plant Breeder
LOZANO, Dr. J. Carlos	Pathologist-Bacteriologist
NOON, Mr. Robert	Pathologist (Special project on cassava storage)
van SCHOONHOVEN, Dr. Aart	Entomologist (also Field Beans)
TORO, Dr. Julio C.	Agronomist

Field Bean Production Systems

GRAHAM, Dr. Peter H.	Microbiologist, Coordinator
BELLOTTI, Dr. Anthony	Entomologist
GALVEZ, Dr. Guillermo	Plant Pathologist
HAYAKAWA, Dr. Yoshihiko	Special project on bean physiology
HERNANDEZ-BRAVO, Dr. Guillermo	Plant Breeder
HOWELER, Dr. Reinhardt	Soil Scientist
LAING, Dr. Douglas	Physiologist
van SCHOONHOVEN, Dr. Aart	Entomologist

Rice Production Systems

CHEANEY, Mr. Robert L.	Rice Specialist

Maize Production Systems

TEMPLE, Dr. Steven Ray	Plant Breeder, Coordinator

Small Farm Systems

FRANCIS, Dr. Charles A.	Plant Breeder, Coordinator

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SPIJKERS, Eng. Petrus	Rural Sociologist (Small Farm Systems) Government of the Netherlands/FAO

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WILDE, Dr. Gerald	Visiting Scientist, Entomology (Field Beans)

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HARWOOD, Mr. Roland E.	Station Operations, Instituto de Ciencias y Tecnologia Agricola (ICTA)

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Maize Program, Headquarters Staff

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CARBALLO, Dr. Q Alfredo (Costa Rica)	Breeder
DE LEON, Dr. Carlos (Mexico)	Pathologist
GOLDSWORTHY, Dr. Peter R. (UK)	Agronomist/Physiologist
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VIOLIC, Dr. Alejandro D. (Chile)	Training Agronomist

Maize Program, Staff Posted Outside Mexico

COLEGROVE. Dr. Michael L. (USA)	Agronomist, Tanzania
DHAWAN, Dr. Narenda L. (India)	Breeder, Egypt
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HART, Dr. Thomas G. (USA)	Agronomist/Team Leader, Zaire
IZUNO, Dr. Takumi (USA)	Breeder, Pakistan
FALMER, Dr. A. F. E. (UK)	Production Agronomist, Pakistan
PANDEY, Dr. Mahesh Ch. (India)	Plant Production, Zaire
SPERLING, Mr. David W. (USA)	Breeder, Tanzania
SPLITTER, Dr. Melvin V. (USA)	Breeder, Nepal

Wheat Program, Headquarters Staff

BORLAUG, Dr. Norman E. (USA)	Program Director
ANDERSON, Dr. Robert Glenn (Canada)	Assistant Director
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CAMPOS V., Dr. Enrique R. (Mexico)	Barley Breeder
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FISCHER, Dr. R. Anthony (Australia)	Agronomist/Physiologist
FLOYD, Mr. Herbert D. (USA)	Training Agronomist
FUENTES, Dr. Santiago F. (Mexico)	Pathologist
KINGMA, Dr. Gerbrard (Netherlands)	Weed Specialist
KOHLI, Dr. Man Mohan (India)	Triticale Breeder
LINDT, Mr. John H. (USA)	Training Agronomist
MARKO, Mr. Paul N. (USA)	Training Agronomist
McMAHON, Dr. Matthew A. (Ireland)	Physiologist
RAJARAM, Dr. Sanjaya (India)	Breeder, Pathologist
RODRIGUEZ, Mr. Ricardo (Mexico)	Germplasm Specialist
WALL, Dr. Patricio (Ireland)	Physiologist (Post Doctorate)
ZILLINSKY, Dr. Frank J. (Canada)	Head/Triticale Program

Wheat Program Staff Posted Outside Mexico

DOOLETTE, Mr. John B. (Australia)	Production Agronomist, Tunisia
KLATT, Dr. Arthur R. (USA)	Breeder, Turkey
LYONS, Dr. Torrey (USA)	Production Agronomist, Tunisia
McCUISTION, Dr. Willis L. (USA)	Production Agronomist, Algeria
NELSON, Mr. Walter L. (USA)	Breeder/Production Agronomist, Algeria
PLOUIN, Mr. Francisco U. (Mexico)	Production Agronomist, Algeria
PRESCOTT, Dr. Jon M. (USA)	Pathologist, Turkey
SAARI, Dr. Eugene E. (USA)	Plant Pathologist, Lebanon
VARUGHESE, Dr. George (India)	Breeder, Tunisia

(Continued)

CIMMYT (Continued)

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VILLEGAS, Dr. Evangelina M. (Mexico)	Biochemist I/C Genl. Svc. Labs.
BAUER, Dr. Reinald (W. Germany)	Nutritionist, Protein Quality Lab.

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ESTRADA, Dr. Nelson	Breeder
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JATALA, Dr. Parviz	Assoc. Nematologist
FRANCO, Mr. Javier	Nematologist
OCHOA, Dr. Carlos	Head of Taxonomy Dept.
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EAST AFRICAN
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MAJISU, Dr. B. N.	Director
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DARRAH, Dr. L. L.	Geneticist, Maize
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MAKUMBI, Mr. V.	Millet Research
MUKURU, Dr. S. Z.	Sorghum, Millet Research

The EAST-WEST CENTER

EAST-WEST FOOD INSTITUTE

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MOTOOKA, Dr. Philip	Research Associate/Weed Science/Crop Protection

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HARDIN, Dr. Lowell S.	Program Officer, Agriculture Office of Vice President International Division, Agricultural Programs

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McLEAN, Dr. Gordon	Wheat and Rice Production
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HAVENER, Mr. Robert D.	Director, Agriculture Development
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ACCATINO, Dr. Primo	Potato Improvement (CIP)
ALAHAYDOIAN, Mr. Eugene-Kevork	Sorghum and Millet Improvement
EL-TOBGY, Dr. Hassan	Agriculture Development Advisor
HAWTIN, Dr. Geofrey	Food Legume Improvement (IDRC)
HOUSE, Dr. Leland R.	Sorghum and Millet Improvement (RF)
LEEUWRIK, Dr. Dirk	Multiple Cropping
McCRARY, Dr. Dean	Production Engineer
RASHID, Dr. Khalid	Food Legume Improvement
SAARI, Dr. Eugene E.	Cereal Pathology (CIMMYT)
SOMAROO, Dr. Bhal H.	Millet Improvement (IDRC)
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INTERNATIONAL CROPS RESEARCH INSTITUTE
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ARAAKE, Mr. M.	Tuaran Agric. Research Center (Sabah)
KITSUTAKA, Mr. Akio	Rice Breeder (Batas, P. W.)
NAKANE, Mr. A.	(Batas, P. W.)
NOZAKI, Mr. M.	(Kedah)
TANOUE, Mr. M.	Tuaran Agric. Research Center (Sabah)
YAMASHITA, Mr. M.	(Kedah)
YASHIMA, Mr. Shigeo	Rice, Drainage & Irrigation (Kedah)
Indonesia	
MIKOSHIBA, Dr. Haruo	Maize Breeder (Bogor)
NAGAI, Dr. Kotaro	Rice Breeder (Lampung Sumatera)
YAMAMOTO, Dr. T.	(Bogor)
India	
IENAGA, Dr. Y.	(New Delhi)
Philippines	
KIMIGAFUKURO, Mr. Takashi	Maize Pathology (Laguna)
OMORI, Mr. Takeshi	Sorghum Agronomy (Laguna)
YAMADA, Mr. M.	Agronomy (Laguna)
Brazil	
HINO, Dr. Toshihiko	Rice virology (Piracicaba S.P.)

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JONES, Dr. N. R.	Deputy Director
ANDREWS, W. H.	Small Farm Storage
ASHMAN, F.	Storage/Inspection & Control
BAKER, A. A.	Storage Entomology (Malawi)
BOOTH, Dr. R. H.	Fruit, Vegetables, Root Crops (Colombia)
BROADBENT, J. H.	Oleaginous Plants
BURDEN, O. J.	Fruit, Vegetables, Root Crops
CALVERLEY, D. J. B.	Storage-structures and handling methods
COURSEY, D. G.	Fruit, Vegetables, Root Crops
CROWTHER, P. C.	Fruit, Vegetables, Root Crops
DENDY, Dr. D. A. V.	Food Processing/Cereals
FRANCIS, B. J.	Protein Foods
FRIENDSHIP, C. A. R.	Storage Entomology (Ethiopia)
GILES, P. H.	Storage Entomology (Nicaragua)
GILMAN, G. A.	Storage Mycology
HAINES, Dr. C. P.	Storage-Pest Control
HINDMARSH, P. S.	Storage Entomology (Zambia)
McFARLANE, J. A.	Storage Entomology (Kenya)
NABNEY, Dr. J.	Head, Food Commodities Dept.
PASSAM, Dr. H. C.	Root Crops
PEERS, F. G.	Cereals
PREVETT, Dr. P. F.	Storage-Training (Brazil)
PROCTOR, D. L.	Storage Entomology
THOMPSON, Dr. A. K.	Fruits and Vegetables
WEBLEY, Dr. O. J.	Storage-Inspection & Control
WHEATLEY, P. E.	Head, Storage Dept.

THE UNIVERSITY OF THE WEST INDIES
DEPARTMENT OF CROP SCIENCE

CABLES: "STOMATA" PORT OF SPAIN

ST AUGUSTINE.
TRINIDAD, W.I.

ROBINSON, Mr. C. K.	Dean of Agriculture
BACON, Dr. P. R.	Zoology
BARNES, Mr. R. F.	Plant Pathology
BRATHWAITE, Dr. C. W. D.	Nematology
CHARLES, Mr. W. B.	Plant Breeding
COOPER, Dr. B. R.	Research
COPE, Dr. F. W.	Plant Pathology
DUNCAN, Dr. E. J.	Botany
HAMMERTON, Dr. J. L.	Agronomy
HAQUE, Dr. S. Q.	Virology
HAYNES, Mr. P. H.	Agronomy
HENDERSON, Dr. T. H.	Head, Dept. of Agric. Extension
HOSEIN, Mr. I.	Horticulture
KENNY, Dr. J. S.	Zoology
McDAVID, Dr. C. R.	Botany
McSHINE, Mr. H.	Zoology
MURRAY, Dr. V. I. E.	Zoology
PARASRAM, Mr. S.	Entomology
PHELPS, Dr. R. H.	Plant Pathology
PIERRE, Dr. R. E.	Plant Pathology
ROYES, Dr. W. V.	Plant Breeding
SINGH, Dr. N. D.	Nematology
SOUTHWELL, Mr. G. A.	Agric. Extension
SPENCE, Dr. J. A.	Botany
STRADLING, Dr. D. J.	Zoology
TAI, Mr. E. A.	Head, Dept. of Crop Science
WILLIAMS, Dr. D. B.	Plant Breeding
WILSON, Dr. L. A.	Biochemistry
WOOD, Dr. D. G.	Botany

WEST AFRICA RICE DEVELOPMENT ASSOCIATION

Association Pour le Developpement de la Riziculture en Afrique de L'Ouest

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ARE, Lekan (Nigerian)	Deputy Executive Secretary
DE BOER, P. G. (Dutch)	Senior Advisor, FAO
DANIELLS, Peter (U.S.A.)	Project Coordinator, USAID
AW, Djibril (Malian)	Production Agronomist, FAO
DELCASSO, G. (French)	Seed Specialist
FAYE, Francois (Senegalese)	Variety Improvement Coordinator
KOFFI, Omer (Togolese)	Soil/Fert. Trials Coordinator
PARKER, R. E. (American)	Rice Proc. & Storage Egr., USAID
ROZEBOOM H. P. (Dutch)	Assoc. Proc. & Storage Egr., FAO
TAGOE, C. E. (Ghanaian)	Production Agronomist, FAO
VOGEL, E. (U.S.A.)	Entomologist, USAID
WILL, Harry (Sierra Leonean)	Research Coordinator,

DIRECTORIES TO AGRICULTURAL SCIENTISTS

The lists in these directories frequently give more information than the specialists' name and location. The scope of some of the directories is worldwide, that of others is national. This section provides another means of obtaining information on food crop specialists, especially those working in developing nations and who may contribute to food crop production in the developing world.

Worldwide

1. An Analysis of the Potentials and Prospects of Increasing Edible Oil Production in West Pakistan (1971).
   By Frederic A. Coffey, et al.

   Published by the Foreign Economic Development Service (FEDS), as Field Report No. 11, in cooperation with the United States Department of Agriculture, and the United States Agency for International Development, 164 pp.

   Lists research stations, and 224 scientists working on: sesame (2), groundnuts (120), soybeans (94), and sunflower (8). It is similar to the Roberts food legumes list (item 6 below), but contains some additional names.

2. Arid Lands Research Institutions: A World Directory (1967).
   Compiled by Patricia Paylore.

   Published by the University of Arizona Press, Tucson, Arizona, U.S.A., 268 pp.

   Institutions listed alphabetically under country, grouped under regions. Gives address, scope of interest, research programs, officer in charge, total number of staff and laboratory facilities.

3. Directory of Plant Systematists 1970 (Publ. 1971)
   Compiled by W. Keuken.

   Published by A. Oosthaeks Uitgeversmaatschappig N. V. for the International Bureau for Plant Taxonomy and Nomenclature, 59 pp.

   Lists scientists who are members of the International Association of Plant Taxonomists (IAPT), and member organizations under country. Approximately half the entries are from the U.S.A.

4. Directory of Scientists engaged in Research on the Pathology of Insects and Other Invertebrates (1967).
   Published by the Laboratory of Invertebrate Pathology, Department of Zoology Entomology, the Ohio State University at Columbus and the Ohio Agricultural Research and Development Center at Wooster, Ohio, U.S.A.

   Lists 567 scientists worldwide, alphabetically. Indexed according to research specializations and countries.

5. FAO Field Project Personnel (1973)
Alphabetical listing of experts by country of assignment, program and nationality, 378 pp.

FAO Headquarters and Regional Professional Staff
(Published periodically) Alphabetical listing of headquarters and regional staff by title, rank, location and nationality. FAO, Via delle Terme di Caracalla, Rome, Italy.

In addition to these two directories the FAO periodically publishes other listings by geographical area, crop specialty or other limited category. No overall catalog of these publications has been published. Copies of publications may be obtained from FAO headquarters on request.

6. The Food Legumes: Recommendations for expansion and acceleration of research to increase production of certain of these high-protein crops (1970).
By Lewis M. Roberts.

Published in cooperation between the United States Department of Agriculture, and the Rockefeller Foundation, 111 West 50th Street, New York, N. Y. 10020, U.S.A., 64 pp.

Lists total of 264 workers on the following crops, under their respective institutions: bean (69), chickpea (12), cowpea (79), groundnut (182), pigeon pea (44), soybean (199). Many names are duplicated among the different crops.

7. The IFT World Directory And Guide (1971)
Published by the Institute of Food Technologists, 221 North La Salle Street, Chicago, Illinois 60601, U.S.A., 338 pp (available only to members).

Lists scientists worldwide and alphabetically by name. Gives addresses and organizational affiliation. Persons listed are primarily from the U.S.A. A separate listing is given for each member organization. Also included are a Directory of Products and Services, and information of food additive regulations for countries having them.

8. ISTA List of Accreditation Authorities, Accredited Stations and Accredited Members. (Published Periodically)
Composition ISTA Committees 1974-1977
International Seed Testing Association (ISTA)
Box 68, N - 1432 As-N.L.H., Norway.

The International Seed Testing Association (ISTA) is dedicated to the development, adoption and publishing of standardized procedures for sampling and testing seed, and to the promotion of uniform application of those procedures for evaluation of seed moving across international borders. The ISTA also actively encourages research in all areas of seed

science and technology, including sampling, testing, storing, processing and distribution, and in variety certification. The ISTA has established a set of "International Rules for Seed Testing" which are applied by its worldwide membership and accredited by the governments of 50 countries.

9. List of Research Workers in the Agricultural Sciences in the Commonwealth and in the Republic of Ireland (1972).
Published by the Executive Council of the Commonwealth Agricultural Bureau, Farnham Royal, Slough, Bucks, England, 731 pp. Price $4.50.

Lists scientists in the following countries, under their respective research institutions: United Kingdom, Canada, Australia, New Zealand, India, Sri Lanka, Ghana, Malaysia, Nigeria, Cyprus, Sierra Leone, Tanzania, Jamaica, Trinidad, and Tobago, Uganda, Kenya, Malawi, Zambia, Gambia, Guyana, Botswana, Barbados, Mauritius, Swaziland, Fiji, Associate States of the Eastern Caribbean, Brunei, Dependent Territories, Republic of Ireland.

The 1969 Edition contains lists of workers in Pakistan, Bangladesh, and Rhodesia.

10. World Crops International Directory and Handbook (1967)
Compiled by T. H. R. Hall.
Published by Leonard Hill, London, England, 326 pp.

Concerned primarily with sources of supply for manufactured equipment required in agriculture. Notes approximately 2600 suppliers of approximately 2200 products. Includes many conversion tables, a 7-page listing of the principal journals on tropical agriculture, a listing of common names of herbicides and pesticides, and a listing of the agricultural research organizations in Great Britain and the Commonwealth.

11. World Directory of Fertilizer Manufacturers, 2nd Ed. (1972). Published by the British Sulphur Corporation, Ltd., 23 Upper Brook Street, London W1Y2BB, England 228 pp.

Lists companies under country. Information includes details of production facilities, planned expansion, corporate structure, personnel and financies.

12. World Directory of Plant Pathologists (1973).
Edited by Fran E. Fisher.
Published by the Editor, at University of Florida IFAS, AREC, Lake Alfred, Florida, U.S.A., 141 pp.

Lists approximately 11,000 Plant Pathologists, alphabetically by countries within continents. Gives names and addresses, and information on specialty and/or interests for about 65% of the persons listed. Index to scientists is by country.

Africa

1. Agricultural Research (1973)
   Published by the Department of Agricultural Technical Services, Pretoria, Republic of South Africa (1973), 464 pp.

   Lists of summaries 167 interim and final reports on research projects, 50 theses, 461 scientific publications, 256 new projects and lists responsible research workers for the period from July 1, 1972 through June 30, 1973.

   Reports are listed by general category and specific crop.

2. Directory of Scientific Research in Ghana (1973)
   Compiled by J. F. A. Wardy
   Published by Kumasi University Press, Kumasi, Ghana, 1973; 78 pp.

   Gives names, addresses, and directors of institutions and lists names of research workers with a very brief statement of the specialists' research interests.

3. Official list of Professional Research Workers, Lecturing Staff and Extension Workers in the Agricultural Field (1973).
   Published by the Department of Agricultural Technical Services, Pretoria, Republic of South Africa, 67 pp.

   Lists Scientists under their respective institutes and other organizations, citing degrees obtained, and technical specialty.

Asia

1. Agricultural Research in India: Institutes and Organizations (1963).
   Published by the Indian Council of Agricultural Research, New Delhi, INDIA.

2. Agricultural Research Workers in Indonesia (1971).
   (Daftar Nama Peneliti Pertanian Tahun). In Indonesian with some citations in English.
   Published by Panitia Koordinasi Penelitian Pertanian, Departement Pertanian, Bogor, INDONESIA, 108 pp.

   Lists 1,050 workers alphabetically and under technical specialty, giving address and crops with which worked.

3. Directory of Research Workers in Agriculture and Animal Husbandry in India (1960).
   Published by the Indian Council of Agricultural Research, Krishni Bhavan, New Delhi, INDIA.

4. Directory of National Research Institutions for Agriculture, Forestry, and Fisheries in Japan (1965).
   Published by Norin Suisan Gijutsu Kaizi, Tokyo, JAPAN, 62 pp.

5. National Agricultural Center Catalogue
Published by Ministry of Education, Republic of Vietnam, 45 Cuong De Avenue, P. O. Box R-12, Saigon, SOUTH VIETNAM, 83 pp.

Gives name, title, and academic degree(s) for permanent and visiting staff.

6. Registry of Scientific and Technical Services for the Asian and Pacific Region, of the Asian and Pacific Council (ASPAC).
P. O. Box 62, Jamison Centre, A.C.T., 2614, AUSTRALIA.
(Dr. J.R.M. Wolfe, Director).

The registry was founded to promote cooperation among professional groups concerned with the application of science and technology to development in Asian and Pacific countries. Included are South Korea, Republic of China (Taiwan), Philippines, South Vietnam, Thailand, Malaysia, Australia, New Zealand, and Japan. The Principal function of the registry is to act as a collector, repository and clearing house of information concerning scientific and technical resources available in the Asian and Pacific region. With regard to agriculture, listed are 605 groups working in plant industry, soils, and entomology, 582 groups working in animal industry, and a list of 183 groups working in forestry and forestry products. The lists give the names of group leaders and their addresses.

7. Who's Who in the Entomological Society of India, with Directory of the Pesticides Industry in the Country (1967)
Compiled by M.G. Jotwani, General Secretary.

Published by the Entomological Society of India, c/o the General Secretary, Division of Entomology, I.A.R.I., New Delhi-12 INDIA, Cost Rs. 10.

Gives biodata on members.

Europe

1. Directory of Agricultural Workers in the Netherlands (1973). (Adressenlijst). In Dutch.
Published by the Nederlands Institute van Landbouwkundig Ingenieurs Postbus 79, Wageningen, NETHERLANDS, 134 pp.

Specialists listed alphabetically, with address, and position held. Includes Dutch workers overseas.

2. Directory of the Royal College of Agriculture (1973-74). (Lantbrukshogskolans Katalog). In Swedish.
Published by K. L. Beckmans, Tryckerier AB, Stockholm, SWEDEN, 67 pp.

Gives divisions of the Royal College, directors, and names and specialties of senior staff members.

3. (Forschungsstatten der Landwirtschaft Ernahrungswirtschafft Veterinarmedizin Forst und Holzwirtschafft in der Bundesrepublik Deutchland
Published by the Zentralstelle fur Agrardokumentation und Information, Bonn-Bad Godesberg, WEST GERMANY, 336 pp.

   The main body of the publication lists 1,384 institutions concerned with agriculture. The name of the director, and a summary of research interests are provided for each.

   Separate listing of Institutions under their respective towns and cities, specialists (alphabetically), and references to persons having a particular specialty.

4. List of Personnel of the Ministry of Agriculture (1974). (Liste nominative du personnel du Ministere de l'Agriculture et des Offices Parastataux Agricoles). In French.

   From a supplement in the Revue de l'Agriculture, published by Ministere de l'Agriculture, Rue de Stassart 36-1050, Brussels, BELGIUM. Agronomists are found under the section entitled "Adrinistration de la Recherche Agronomique," pp. 43-50.

   Gives institution their addresses and names of directors and scientists but without specialties or other data.

5. Members of the Association of Scandinavian Agricultural Scientists (1971). Fortegnelse over NJF's Medlemmer). In Norwegian.
Published by Nordiske Jordbruksforskers Forening (NJK), Wergelandsveien 15, Oslo 1, NORWAY, 84 pp.

   Gives name, addresses, and technical specialties of scientists. Separate lists are provided for each of the five countries, Denmark, Finland, Iceland, Norway and Sweden.

Latin America

1. Agricultural Investigators of the Andean Zone (1969).
(Investigadores Agricolas de la Zona Andina) In Spanish.
Published by the Instituto Interamericano de Ciencias Agricolas (IICA) de la O.E.A. (Programa de Investigacion--Zona Andina), Lima, PERU, 283 pp.

   Gives biodata on 1,318 specialists in Bolivia, Colombia, Ecuador, Peru and Venezuela with cross-references under countries, specialties, and crops. Notes which investigators maintain germplasm banks. The Appendix gives a list of agricultural institutions for each country.

2. Caribbean Index of Personnel Involved in Vegetable Research (1972).
Compiled by R. Baynes, B. Eavis and J. Fournet.

Published under the auspices of the Caribbean Food Crops Society and the Regional Field Experimental Program (Windward Islands Unit) of the University of the West Indies, U.W.I., Cave Hill, BARBADOS, 10 pp.

Alphabetical listing of scientists given for each location in the Caribbean along with address and major interest.

3. Catalogue of Specialists in Technology and the Agricultural Sciences in Brazil (1965).
(Catalogo de Especialistas em Technologia e Ciencias Agricolas No Brasil). In Portuguese.
By Antonio Jose Teixeira Mendes.
Publicacao No. 2639, Instituto Agronomico de Campinas, Caixa Postal 28, Campinas, Sao Paulo, BRAZIL, 465 pp.

Names and addresses of 1,984 specialists are listed separately under crops with which worked and specialties.

4. Directory of Phytopathologists for Latin America (1972).
(Directorio de Fitopatologos de America Latina). In Spanish.

Edited by F. E. Fisher, Citrus Experiment Station, P.O. Box 1088, Lake Alfred, Florida 33850, U. S. A., 51 pp. Price $2.00.

A joint project of the Committee of International Cooperation of the American Phytopathological Society (Caribbean Division), and the Latin American Society of Plant Pathology.

Gives names, addresses, and specialties of 770 scientists with listings alphabetically by country.

5. List of Bean Investigators (in Latin America) (1973).
(Lista de Investigadores en Frijol (Phaseolus vulgaris). In Spanish.
Compiled by Antonio Pinchinat.

Published by Instituto Interamericano de Ciencias Agricolas (IICA), Centro de Ensenanza e Investigaciones, Turrialba, COSTA RICA.

Lists 199 scientists in Latin America, under their respective countries.

North America

1. The Biographic Register (1974).
Published as Publication 7722, Department and Foreign Services Series 126, by the Office of Operations, Department of State, Washington, D.C. (For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402; price $4.50), 382 pp.

Gives biodata for all employees of the Agency for International Development, the Peace Corps, the Foreign Agricultural Service, among others.

2. Directory, Agricultural Research Institute, (1973)
Published by the Agricultural Research Institute, a subsidiary organization of the National Research Council. Room 835, Joseph Henry Building, 2100 Pennsylvania Avenue, N.W., Washington, D.C. 20037. 18 pages.

   Includes the names of members with private organizations and firms as well as those from state and federal agencies.

3. Directory of Members (1973-74).
Published by the Federation of American Societies for Experimental Biology, 9650 Rockville Pike, Bethesda, Maryland 20014, U.S.A., 409 pp.

   Membership includes the American Physiological Society, the American Society of Biological Chemists, the American Society for Pharmacology and Experimental Therapeutics, the American Institute of Nutrition, and the American Association of Immunologists. Members of all 6 societies are listed alphabetically, including overseas members, with information on academic degrees and positions held. Separate directories for each society are included. The appendix includes a directory for each professional society and a directory for each state in the U.S.A., and for each other country or appropriate subdivision thereof.

4. Directory of Members and Committees, Division of Biology and Agriculture (1966-67).
Published by the National Academy of Sciences, National Research Council, Washington, D.C., U.S.A., 92 pp.

   Includes membership on the Committee on Plant and Animal Pests (Subcommittees on nematodes, plant pathogens, vertebrate pests, weeds), and members of the Food and Nutrition Board (Committees on Amino acids, cereals, child nutrition, dietary allowances, fats and food protection).

5. 1974 Directory of Personnel.
Published by the Information Division, Canada Department of Agriculture, Ottawa K1A0C7 (copies gratis).

   Personnel of the Canada Department of Agriculture, listed under the Research Branch and the separate Experiment Stations. Gives specialty and academic degree.

6. Professional Workers in State Experiment Stations and Other Cooperating State Institutions (1971-72).
Published as Agricultural Handbook No. 305 by the Cooperative Research Service, United States Department of Agriculture, Washington, D.C., U.S.A., 334 pp. (For sale by the Superintendent of Documents, U.S. Printing Office, Washington, D.C. 20402; price $1.25)

   Scientists listed, with their technical specialties, under each subject matter Department of the respective State Experiment Stations and other Cooperating State Institutions.

DIRECTORIES TO AGRICULTURAL RESEARCH STATIONS

These directories list and describe research stations that have programs on food crop research. Some identify specialists, but others do not. They are listed separately by regions and on a worldwide basis.

Worldwide

1. Agricultural Research Index, 5th Ed. Vols. I and II (1970) A guide to agricultural research, including dairy farming, fisheries, food, forestry, horticulture, and veterinary science.

   Published by Francis Hodgson, Ltd., P. O. Box 74, Guernsey, Channel Islands, England, 1,230 pp.

   Gives names and addresses of institutions, secretary, staff list, and scope of interest. Includes an Index of original language titles of each institution, and an Index of English language titles. Also included is a bibliography of selected guides and periodicals on agricultural research literature.

2. ISTA List of Accreditation Authorities, Accredited Stations and Accredited Members. (Published Periodically)
   Composition ISTA Committees 1974-1977
   International Seed Testing Association (ISTA)
   Box 68, N - 1432 As-N.L.H., Norway

   The International Seed Testing Association (ISTA) is dedicated to the development, adoption and publishing of standardized procedures for sampling and testing seeds, and to the promotion of uniform application of those procedures for evaluation of seeds moving across international borders. The ISTA also actively encourages research in all areas of seed science and technology, including sampling, testing, storing, processing and distributing seeds, and in variety certification. The ISTA has established a set of "International Rules for Seed Testing" which are applied by its worldwide membership and accredited by the governments of 50 countries.

Asia

1. Agricultural Research in Pakistan (1966).
   compiled by the Agricultural Research Council, Pakistan, Block No. 79, Pakistan Secretariat, Karachi, 503 pp.

A directory of institutes, universities, and other organizations in Pakistan and Bangladesh, where research on agriculture, animal husbandry, forestry, and fisheries is in progress.

Part I. Gives director, and research workers listed under their research institutions; their academic degrees, and specialties.

Part II. Alphabetical Index of Research Subjects.

Part III. Alphabetical Index of a total of 1,939 Research Workers.

Part IV. Research Institutions; purpose, date of founding, facilities, equipment, sub-stations.

Part V. List of Published Papers and Bulletins.

2. Directory of Selected Scientific Institutions in Mainland China (1970)
Prepared by Surveys and Research Corporation (1030 15th St. N.W.,
Washington, D.C. 20005), 469 pp.

Published for the National Science Foundation by the Hoover Institution of War, Revolution, and Peace. Stanford University, Stanford, California 94305.

Gives information on 490 selected institutions, and a supplementary list of 1,127 additional institutions: location, names and biodata for top administrative officers and noted scientists, structure, professional societies and agricultural colleges. The institutions are not restricted to agriculture.

3. Directory of Research Institutions and Laboratories in Japan (1974).
Compiled by the Science Council of Japan.
Published by the Printing Bureau, Ministry of Finance, 2 Aoicho,
Akasaka. Minato-Ku, Tokyo, Japan.

Gives establishment date, list of divisions, name of director, number of staff publications, research activities, and subject index to research activities.

Europe

1. European Research Index, Vols. I and II. 3rd Edition (1973).
Compiled by Colin H. Williams.
Published by Francis Hodgson, Ltd.
P. O. Box 74, Guernsey, Channel Islands, England, 1,738 pp.

Gives name and address of each institution; affiliation, names of administrative officers, staff list, and scope of interest. The institutions

are not confined to agriculture. Includes Eastern Europe, but not the U.S.S.R. Indices include original language titles of the institutions, and an index of key work subjects.

2. Directory of Selected Research Institutes in Eastern Europe (1967)
Prepared by Arthur D. Little, Inc. for the National Science Foundation.
Published by Columbia University Press, New York, N.Y., U.S.A.

Gives name of director, and a brief description of work for each institution. The institutions are not confined to agriculture.

3. Directory of Selected Scientific Instititutions in the U.S.S.R. (1963)
Prepared by Battelle Memorial Institute for the National Science Foundation.

Published by Charles E. Merrill Books, Inc., Columbus, Ohio, USA, 1,134 pp.

Gives names of director and selected staff members, description of activities, and the separate divisions for each institution. The institutions are not confined to agriculture.

4. Index of Agricultural Research Institutions in Europe (1963).
by R.F.E. Devred.
Published by FAO, Via delle Terme de Caracalla, Rome, Italy.

Institutions are listed under country. Within each country, the division is according to the principal subject matter dealt with by the institution. For each institution, the address, name of director, and main areas of work are given. The 22 countries listed are restricted to FAO members, and include Israel. Language used is that in which the information was submitted, usually English.

5. Centers, Stations, Laboratories (1971). In French.
Published by Institut National de la Recherche Agronomique, 149 Rue de Grenelle,Paris 7e, France, 93 pp.

Lists stations and laboratories engaged in agronomic research in France, under their respective centers; cross-indexed as to specialty, geographic location, and the names of the directors of each.

6. Agricultural Science in the Netherlands (1974).
Published by the International Agricultural Centre, P. O. Box 88, Wageningen, The Netherlands, 352 pp.

Gives all the agricultural institutions in The Netherlands, noting their responsibilities and activities, and listing staff members and the specialties of each. Included are the Division for Agricultural Research (Wageningen Section), the National Council for Agricultural Research,

the Royal Tropical Institute, and the International Agricultural Centre. Other institutions are listed under the disciplines studied.

7. Administration Research Education Information in Swedish Agriculture (1970).
   Published by Statens Lantbruks Information, Stockholm, Sweden, 40 pp.

   Gives a general description of 64 institutions. No staff lists are included.

Latin America

1. The Scientific Institutions of Latin America (1970).
   by Ronald Hilton

   Published by the California Institute of International Studies, Stanford, California, USA., 747 pp.

   Gives history, organization, interests, and facilities for each institution. Does not give name of director, staff lists, or publications. Gives a good background on each of the countries concerned, and maps showing the locations of the institutions. The institutions are not confined to agriculture.

2. Agricultural Experiment Stations of Latin America (1971).
   (Estaciones Experimentales Agricolas de America Latina). In Spanish. Prepared by a special group of consultants.

   Published by the Interamerican Development Bank, 808 17th Street, N.W. Washington, D.C. USA, 367 pp.

   Listed under countries are 205 stations with information including ecological situation, number of staff, projects under investigation, and major contributions to date.

3. Agricultural Experiment Stations of the Andean Zone (1970)
   (Estaciones Experimentales Agricolas de la Zona Andina). In Spanish

   Miscellaneous Publication No. 72 of the Instituto Interamericano de Ciencias Agricolas de la O.E.A. (Programa de Investigacion Zona Andina), Lima, Peru.

   Gives basic data on 80 stations of Bolivia, Colombia, Ecuador, Peru, and Venezuela; including ecological locale, number and types of personnel, general description of projects being investigated, and major accomplishments. A supplement includes names of investigators who maintain germplasm banks.

4. Catalogue of Agricultural Experiment Stations in Central America (1971). (Catalogo de Estaciones Agricolas Experimentales del Istmo Centroamericano). In Spanish.

   Miscellaneous Publication No. 83 of the Instituto Interamericano de Ciencias Agricolas (IICA), Turrialba, Costa Rica, 104 pp.

   Gives a wide range of data on 52 stations with locations shown on maps.

U.S.A.

Experiment Stations engaged in work supported by A.I.D. on protein content, protein quality, or biological value.

A.I.D. now has the following research projects supporting this work on protein:

U.S. Department of Agriculture -- grain legumes, especially beans and cowpeas

Cornell University -- high lysine maize, biological evaluation

Universities of Illinois and Puerto Rico -- soybeans

University of Missouri - mungbeans

Montana State University -- barley

University of Nebraska -- winter wheat

Purdue University -- maize, sorghum

Puerto Rico -- beans and cowpeas

University of Wisconsin -- beans, oats

See Appendix B, North America entry No. 6 (page 192) for names of specialists on these projects. (Recent editions only).

APPENDIX D

U. S. NON-PROFIT ORGANIZATIONS

There are more than 400 US non-profit organizations engaged in development assistance to the developing world. Many of these agencies provide personnel and/or material support to food crop production. While it would be essentially impossible to give all such agencies in this roster, the following are some of the organizations supporting agricultural assistance abroad.

A detailed listing of agencies engaged in foreign operations has been published in "U.S. Non-Profit Organizations in Development Assistance Abroad" and may be obtained from the Technical Assistance Information Clearing House (TAICH) of the American Council of Voluntary Agencies for Foreign Service, Inc., 200 Park Avenue South, New York, New York 10003. Countries of assistance are indicated for each agency in this publication.

1. Agricultural Development Council Inc.
   630 Fifth Avenue, New York, New York 10021

   U.S. Personnel Abroad: 10

   Assistance is provided in economic and development planning and education. In food production and agriculture it collaborates in research activities related to problems of food production, adoption of new technologies and provision of extension service.

2. The Asia Foundation
   550 Kearney Street, San Francisco California 94108
   Mailing Address: P. O. Box 3223, San Francisco, California 94119.

   U.S. Personnel Abroad: 20

   Assistance is provided in communications, community development, cooperatives, credit unions and loans, education, management services, population and family planning and social welfare. In food production and agriculture it supports programs designed to increase food and livestock production.

3. Brethern in Christ Missions
   P. O. Box 149, Elizabethtown, Pennsylvania 17022

   U.S. (and Canadian) Personnel Abroad: 54

   Assistance is provided in education, medicine and public health. In food production and agriculture it advises farmers in the use of fertilization and seed improvement.

4. Catholic Relief Services
350 Fifth Avenue, New York, New York 10001

U.S. Personnel Abroad: 135

Assistance is provided in communications, community development, construction, cooperatives, credit unions and loans, education, industrial development, medicine and public health and social welfare. In food production and agricultural it supports demonstration and pilot projects, provides supplies and materials, supports agricultural training programs and cooperatives, and encourages the use of grain storage facilities.

5. Christian Church (Disciples of Christ)
222 South Downey Avenue, Indianapolis, Indiana 46219

U.S. Personnel Abroad: 136

Assistance is rovided in community devleopment, education, medicine and public health, population and family planning and social welfare. In food production and agriculture it supports agricultural training work, conducts related experimental work and gives instruction in rural methods.

6. Church World Service
475 Riveside Drive, New York, New York 10037

U.S. Personnel Abroad: 40

Assistance is provided in community development construction, cooperatives, credit unions and loans, education, equipment and material aid, industrial development, medicine and public health, population and family planning, social welfare and special projects. In food production and agriculture support is provided in training, irrigation and water supply, land reclamation, soil conservation and reforestation projects and the improvement of livestock, poultry and crops.

7. Farmers and World Affairs, Inc.
101 North Seventh Street, Camden, New Jersey 08102

U.S. Personnel Abroad: 0

Assistance is provided in arranging for foreign agriculturists to spend 6-12 months in on-the-farm training at host farms in the U.S. Participants pay round-trip travel costs and the host farmer provides the room and board. The program includes a guided tour of the United States.

8. International Institute of Rural Reconstruction, Inc.
U.S. Office: 1775 Broadway, New York, New York 10019

U.S. Personnel Abroad: 4

Assistance is provided in conducting training courses for rural development specialists, administrators and supervisors. Other areas supported are

International extension, communications, community development, cooperatives, credit unions and loans, education, industrial development, medicine and public health, population and family planning. In food production and agriculture it conducts experiments and demonstrations relating to improved farming methods, fertilizers, livestock and seeds, sponsors farmer's food seminars, upgrades and immunizes livestock, and offers training in methods of food preservation.

9. International Voluntary Services, Inc.
1555 Connecticut Avenue, N.W., Washington, D.C. 20036

U.S. Personnel Abroad: 112 Volunteers

Assistance is provided in cooperatives, economic and development planning and education. In food production and agriculture it works with agricultural agents and farmers to establish farm credit programs, improve crops and livestock.

10. IRI Research Institute, Inc.
One Rockefeller Plaza, New York, New York 10020

U.S. Personnel Abroad: 22

Assistance is provided in food production and agriculture by conducting research on soil fertility and use of fertilizer, livestock nutrition and pasturage and agricultural use of rain forest. It also operates experimental farms, provides training to agricultural technicians and extension agents as well as supervises graduate-level training programs in U.S. and abroad.

11. Mennonite Central Committee
21 South 12th Street, Akron, Pennsylvania 17501

U.S. (and Canadian) Personnel Abroad: 469 Volunteers

Assistance is provided in community development, education, equipment and material aid, industrial development, medicine and public health and social welfare. In food production and agriculture it operates demonstrational farms, poultry projects, food for work programs, provides agriculturists to specific projects, supports land reclamation work, and cooperates in agricultural extension projects.

12. Near East Foundation
54 East 64th Street, New York, New York 10021

U.S. Personnel Abroad: 45

Assistance is provided in education, medicine and public health, and social welfare. In food production and agriculture it provides staff for training of local farmers, officers and rural workers.

13. **World Neighbors, Inc.**
5116 North Portland Avenue, Oklahoma City, Oklahoma 73112

U.S. Personnel Abroad: 8

Assistance is provided in community development, construction, education, equipment and material aid, industrial development, medicine and public health, population and family planning and social welfare. In food production and agriculture it provides support to crop improvement and extension work, agricultural training, expansion of fruit and vegetable production, food for work programs, animal breeding, fishpond stocking and beekeeping.

NATIONAL ASSOCIATIONS IN THE U. S.

Professional associations (societies) and other organizations frequently have available a list of members and in some cases the area of specialization of each member. Two publications that list national organizations including scientific societies in the United States are listed below.

Encyclopedia of Associations, is published by Gale Research Company, Book Tower, Detroit, Michigan 48226. Volume 1 entitled "National Organizations of the U.S." includes the following in the summary of contents:

"A guide to National and International Organizations including: - - - - Agricultural and Commodity; - - - - - - - - - Scientific, Engineering and Technical; - - - -"

County Agents Directory, published by C. L. Mast Jr.and Associates, 2041 Vardan Lane, Flossmoor, Illinois 60422 lists "National Organizations" in addition to several other listings relating to the need of county agents.

Copies of this publication are available from the address below. Paper copies are $15; microfiche copies are $3 for three 4x6 film cards, 98 pages each. Please remit by check or mo order in U.S. dollars.

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